

**STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND
DEVELOPMENT**

CONSTRUCTION PROPOSAL



FEDERAL AID PROJECT

**STATE PROJECT NO. 064-01-0040
CAMINADA BAY BRIDGE
ROUTE LA 1
JEFFERSON PARISH**



STATE PROJECT NO. 064-01-0040
TABLE OF CONTENTS

	Page No.
Title Sheet	A-1
Table of Contents	B-1
Notice to Contractors	C-1 thru C-2
Special Provisions	D-1 thru D-73
Supplemental Specifications:	
Supplemental Specifications for 2006 Standard Specifications (08/08)	E-1 thru E-35
Water Distribution Systems (08/06)	E-36 thru E-44
Female and Minority Participation in Construction (01/83).....	E-45 thru E-51
New Orleans Plan (01/83)	E-52 thru E-53
On-The-Job Training (07/08)	E-54 thru E-57
Required Contract Provisions, Federal-Aid Construction Contracts (04/93) (Rev. 05/94)	F-1 thru F-10
DBE Participation in Federal Aid Construction Contracts (06/08).....	G-1 thru G-13
Project Sign Detail	H-1
Minimum Wage Determination	I-1 thru I-7
Technical Specifications for Caminada Bay Potable Water Distribution System Relocation.....	J-1 thru J-36
Technical Specifications for Instrumentation Installation Integral Bridge Abutment ...	K-1 thru K-10
Construction Proposal Information or Returnables:	
Title Sheet.....	L-1
Contract Time Form	M-1
Bid Bond.....	N-1
Schedule of Items	O-1 thru O-14
Construction Proposal Signature and Execution Form.....	P-1 thru P-2

NOTICE TO CONTRACTORS (11/08)

Electronic bids and electronic bid bonds for the following project will be downloaded by the Department of Transportation and Development (DOTD) on **Wednesday, June 24, 2009**. **Paper bids and paper bid bonds will not be accepted.** Electronic bids and electronic bid bonds must be submitted through www.bidx.com prior to the electronic bidding deadline. Beginning at 10:00 a.m., all bids will be downloaded and posted online at <http://www.dotd.la.gov/cgi-bin/construction.asp>. No bids are accepted after 10:00 a.m.

DBE GOAL PROJECT

STATE PROJECT NO. 064-01-0040

FEDERAL AID PROJECT NO. 5201(600)

DESCRIPTION: CAMINADA BAY BRIDGE

ROUTES: LA 1

PARISH: JEFFERSON

LENGTH: 1.168 miles

TYPE: GRADING, DRAINAGE STRUCTURES, CLASS II BASE COURSE, SUPERPAVE ASPHALTIC CONCRETE PAVEMENT, CONCRETE AND GIRDER SPAN BRIDGE, AND RELATED WORK.

LIMITS: STATE PROJECT NO. 064-01-0040; LOCATED ON ROUTE LA 1 OVER CAMINADA BAY.

ESTIMATED COST RANGE: \$30,000,000 to \$50,000,000

PROJECT ENGINEER: GISCLAIR, GARY; 4920 Imperial Drive, Houma LA, 70360, (985) 232-7778.

PROJECT MANAGER: DELATTE, BRIAN.

Bids must be prepared and submitted in accordance with Section 102 of the 2006 Louisiana Standard Specifications for Roads and Bridges as amended by the project specifications, and must include all information required by the proposal.

NOTICE TO CONTRACTORS (CONTINUED)

Paper plans and/or proposals may be obtained in Room 101-A of the DOTD Headquarters Administration Building, 1201 Capitol Access Road in Baton Rouge, or by contacting the DOTD; Email: sharonknight@dotd.la.gov, Phone (225) 379-1111, FAX: (225) 379-1714, or by written requests sent to the Louisiana Department of Transportation and Development, Project Control Section, P. O. Box 94245, Baton Rouge, LA 70804-9245. Proposals will not be issued later than 24 hours prior to the time set for opening bids. All Addenda, Amendments, Letters of Clarification, and Withdrawal Notices will be posted online. **Paper notices will not be distributed.** Construction proposal information may be accessed via the Internet at www.dotd.la.gov. From the LA DOTD home page, select the following options: **Doing Business with DOTD**, then **Construction Letting Information**. Once the **Construction Letting Information** page appears, find the **Notice to Contractors** box. From the drop down menu, select the appropriate letting date and press the "Go To" button to open the page, which provides a listing of all projects to be let and a **Construction Proposal Documents** link for each project. All project specific notices are found here. **It will be the responsibility of the bidder to check for updates.** If paper copies of the proposal are desired, the proposal cost is \$25.00. If paper copies of the plans are desired, the cost of the plans is \$26.00 for complete plans. The purchase price for paper plans and proposals is non-refundable. Additionally, plans and specifications may be seen at the Project Engineer's office or in Room 101-A of the DOTD's Headquarters Administration Building in Baton Rouge. Upon request, the Project Engineer will show the work.

All questions concerning the plans shall be submitted via the Electronic Plans Distribution Center known as **Falcon**. Questions submitted within 96 hours of the bid deadline may not be answered prior to bidding. Falcon may be accessed via the Internet at www.dotd.la.gov. From the home page, select **Doing Business with DOTD** from the left-hand menu, then select **Construction Letting Information** on the pop-up menu. On the Construction Letting Information page, select the link, ***DOTD's Plan Room***. Login to Falcon (or request an ID if a first-time user). Once logged in, you will have access to view Project Information, submit a question concerning the project, and view the plans. All submitted questions will be forwarded by email to the Project Manager and the Project Engineer for a response.

The U. S. Department of Transportation (DOT) operates a toll free "Hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should call 1-800-424-9071. All information will be treated confidentially and caller anonymity will be respected.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

GENERAL BIDDING REQUIREMENTS (08/06): The specifications, contract and bonds governing the construction of the work are the 2006 Edition of the Louisiana Standard Specifications for Roads and Bridges, together with any supplementary specifications and special provisions attached to this proposal.

Bids shall be prepared and submitted in accordance with Section 102 of the Standard Specifications.

The plans herein referred to are the plans approved and marked with the project number, route and Parish, together with all standard or special designs that may be included in such plans. The bidder declares that the only parties interested in this proposal as principals are those named herein; that this proposal is made without collusion or combination of any kind with any other person, firm, association, or corporation, or any member or officer thereof; that careful examination has been made of the site of the proposed work, the plans, Standard Specifications, supplementary specifications and special provisions above mentioned, and the form of contract and payment, performance, and retainage bond; that the bidder agrees, if this proposal is accepted, to provide all necessary machinery, tools, apparatus and other means of construction and will do all work and furnish all material specified in the contract, in the manner and time therein prescribed and in accordance with the requirements therein set forth; and agrees to accept as full compensation therefore, the amount of the summation of the products of the quantities of work and material incorporated in the completed project, as determined by the engineer, multiplied by the respective unit prices herein bid.

It is understood by the bidder that the quantities given in this proposal are a fair approximation of the amount of work to be done and that the sum of the products of the approximate quantities multiplied by the respective unit prices bid shall constitute gross sum bid, which sum shall be used in comparison of bids and awarding of the contract.

The bidder further agrees to perform all extra and force account work that may be required on the basis provided in the specifications.

The bidder further agrees that within 15 calendar days after the contract has been transmitted to him, he will execute the contract and furnish the Department satisfactory surety bonds.

If this proposal is accepted and the bidder fails to execute the contract and furnish bonds as above provided, the proposal guaranty shall become the property of the Department; otherwise, said proposal guaranty will be returned to the bidder; all in accordance with Subsection 103.04.

MANDATORY ELECTRONIC BIDS AND ELECTRONIC BID BONDS SUBMISSION (10/08): This project requires mandatory electronic bidding. All Specifications, whether Standard, Supplemental or Special Provisions, are hereby amended to delete any references regarding paper bids and the ability to submit paper bid forms.

The contractor shall register online to be placed on the Louisiana Department of Transportation and Development (LA DOTD) prospective bidders list or for information only list.

Modifications to proposal documents will be posted on the Department's website at the following URL address: www.dotd.la.gov/cgi-bin/construction.asp.

LA DOTD shall not be responsible if the bidder cannot complete and submit a bid due to failure or incomplete delivery of the files submitted via the internet.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

AWARD OF CONTRACT: Subsection 103.02 is hereby amended to include the following. The Award of Contract is contingent upon the Department having the necessary funds to provide the State match of Federal funds authorized for this project. Should these matching funds not be immediately available, Award of Contract may be delayed into the next fiscal year, with an anticipated fund availability of July 15, 2009. The successful low bidder shall agree to extending the time needed for Award of Contract as necessary through July 31, 2009, as originally bid.

DBE PARTICIPATION IN FEDERAL AID CONSTRUCTION CONTRACTS (02/07):

This project is a DBE goal project. In accordance with the Required Contract Provisions for DBE Participation in Federal Aid Construction Contracts elsewhere herein, the DBE goal for approved subcontracting work on this project is **5 percent** of the total contract bid price. The contractor shall submit DOTD Form OMF-1A (Request to Sublet) and have it approved by the Department before any subcontract work is done on the project. Only those businesses certified by the Department as Disadvantaged Business Enterprises (DBEs) may be utilized in fulfillment of the DBE goal requirement. Such businesses are those certified by the Louisiana Unified Certification Program on the basis of ownership and control by persons found to be socially and economically disadvantaged in accordance with Section 8(a) of the Small Business Act, as amended and Title 49, Code of Federal Regulations, Part 26 (49 CFR 26).

PARTICIPATION IN JOB TRAINING (07/08): If the contractor desires to participate in job training, as provided by Supplemental Specifications elsewhere herein, he/she shall submit a written request to the project engineer with a copy to the Compliance Program Section. According to the design formula, the number of potential trainees has been established as seven. For the purposes of reimbursement, this number of trainees has been translated into an estimated seven thousand trainee hours. The pay item for Trainee Reimbursement; will be established in the contract in accordance with the Supplemental Specifications for On-The-Job Training and the above hours.

Should the design formula not indicate that the contract could support training; a contractor may still train upon the approval of the Department.

BUY AMERICA PROVISIONS (03/95): Pursuant to the "Buy America Provisions" of the Surface Transportation Assistance Act (STAA) of 1982 as promulgated by current FHWA regulation 23 CFR 635.410 and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) amendment to (STAA), all steel and iron materials permanently installed on this project shall be manufactured, including application of a coating, in the United States, unless a waiver of these provisions is granted. Coating includes all processes which protect or enhance the value of the material to which the coating is applied. The request for waiver must be presented in writing to the Department by the contractor. Such waiver may be granted if it is determined that:

- (1) The application of Buy America Provisions would be inconsistent with the public interest or
- (2) Such materials are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.

Minimal use of foreign steel and iron materials will be allowed without waiver provided the cost of these materials does not exceed 0.1 percent of the total contract cost or \$2,500, whichever is greater; however, the contractor shall make written request to the DOTD Construction Engineering Administrator for permission to use such foreign materials and shall furnish a listing of the materials, their monetary value, and their origin and place of production.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

The burden of proof for the origin and place of production and any request for waiver is the responsibility of the contractor.

Prior to the use of steel and iron materials in the project, the contractor shall furnish Mill Test Reports to the engineer for such steel and iron materials, accompanied by a notarized certification stating that the Mill Test Reports represent the steel and iron materials to be furnished and that such materials were produced and fabricated in the United States.

Pig iron and processed, pelletized, and reduced iron ore are exempt from the Buy America Provisions.

COST-PLUS-TIME BIDDING PROCEDURE (A + B METHOD)(08/06): The 2006 Standard Specifications and Supplemental Specifications, as amended elsewhere herein, are further amended as follows:

General. The process for bidding and the award of this project will take into account not only the contract amount bid but also the bidder's stated contract time in which the project will be completed to final acceptance. This method will only be used to determine the successful bidder. It will not be used to determine the award amount nor final payment to the contractor.

Definition of Terms. For this project the following definitions apply:

- (a) Calendar Day – Refer to Subsection 101.03.
- (b) Contract Amount – The summation of the products of the quantities shown in the Schedule of Items multiplied by the unit bid prices.
- (c) Contract Time – The number of calendar days stated in the successful bidders proposal to complete the project to final acceptance as adjusted by authorized extensions.
- (d) Daily Road User Cost – The amount which represents the average daily cost of interference and inconvenience to the road user. The Department has assigned a daily road user cost of \$3000 per calendar day for this project.
- (e) Final Acceptance – Refer to Subsection 105.17(b).

Preparation of Proposal. In addition to all other bidding requirements of the project specifications, the bidder shall state his required completion time in the space provided on the "CONTRACT TIME" form contained elsewhere herein. The proposed completion time shall be based on the construction phases shown in the plans in their respective order and will be a factor used in considering bids for award. The stated number of calendar days required for completion will be the contract time for this project should the bidder be successful. The total number of days stated by the bidder to complete the project shall not exceed the maximum allowable contract time stated on the "CONTRACT TIME" form contained elsewhere herein. Bids not including a contract time, or showing time to completion in excess of the maximum amount will be considered irregular and will be rejected.

Consideration of Bids. After bids are opened and read, they will be compared based on the Total Bid Amount as determined by the following formula. In case of equal total bid amounts between qualified bidders, award will be made to the bidder proposing the lowest contract time.

$$\text{Total Bid Amount} = A + B$$

Where:

A = the contract amount as defined herein.

B = the product of the number of calendar days of contract time stated by the bidder and the daily road user cost contained herein.

Conditional Notice to Proceed/Notice to Proceed. If this A + B project is awarded during the months of September, October or November, the Department will consider issuing a

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Conditional Notice to Proceed with an expiration date of March 1 of the following calendar year, whereupon a Notice to Proceed will become effective. Such request for delay from the contractor shall be in writing with justification for the delay. If a Conditional Notice to Proceed is issued then any assembly period, as provided in the special provision "Contract Time", is negated.

Late Completion. Should the contractor fail to complete the project to final acceptance prior to expiration of the contract time, stipulated damages will be charged an amount equal to the daily road user cost stated herein.

INTENT OF CONTRACT (11/95): Subsection 104.01, Intent of Contract, is amended to include the following.

(a) **Covenant of Good Faith and Fair Dealing.**

This contract imposes an obligation of good faith and fair dealing in its performance and enforcement.

The contractor and the Department agree from the beginning to focus on creative cooperation, to avoid adverse confrontation, and to foster mutual respect, along with a positive commitment to honesty and integrity, and agree to the following mutual duties.

- (1) Each will function within the laws and statutes applicable to their duties and responsibilities.
- (2) Each will communicate in an open and candid manner.
- (3) Each will assist in the other's performance.
- (4) Each will avoid hindering the other's performance.
- (5) Each will proceed to fulfill its obligations diligently.
- (6) Each will cooperate in the common endeavor of the contract.

(b) **Voluntary Partnering.**

The Louisiana Department of Transportation and Development intends to encourage the foundation of a cohesive partnership with the contractor and its principal subcontractors and suppliers. This partnership will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals. The objective is a cooperative approach to contract management that will reduce costs, litigation, and "stress" while completing the project in accordance with the plans and specifications.

This partnership will be bilateral in makeup, and participation in partnering will be totally voluntary and is not a requirement of the contract.

A partnering conference is to be implemented and held prior to beginning construction. The contractor's management personnel and the Project Engineer will initiate a partnering development conference. They, working with the assistance of the District Construction Engineer, will make arrangements to determine the facilitator, the attendees at the conference, agenda of the conference, duration, and location. Persons required to be in attendance will be the Project Engineer and key project personnel; the contractor's on-site project manager and key project supervision personnel of both the prime and principal subcontractors and suppliers. The project design engineers, FHWA, key company representatives, and key local government personnel will also be invited to attend as necessary. The contractor and DOTD will also be required to have Regional/District and Corporate/State level managers on the project team.

Any cost associated with effectuating this partnering will be agreed to by both parties and will be shared equally and will be paid for in accordance with Subsection 109.04. The contractor, DOTD, FHWA and all others invited to the partnering conference will be responsible

SPECIAL PROVISIONS

for any expenses incurred by their respective employees which includes salaries, travel, and lodging.

Follow-up conferences may be held periodically throughout the duration of the contract as agreed by the contractor and the DOTD.

The establishment of a partnership charter on a project will not change the legal relationship of the parties to the contract nor relieve either party from any of the terms of the contract. This partnership charter is intended only to establish an environment of cooperation and communication between all parties involved with the completion of the project.

MAINTENANCE OF TRAFFIC (11/13/08): Subsection 104.03 of the 2006 Standard Specifications is amended to include the following requirements.

The contractor shall provide for and maintain through and local traffic at all times and shall conduct his operations in such manner as to cause the least possible interference with traffic at junctions with roads, streets and driveways.

The contractor shall conduct his paving operations on one side of the roadway at a time. The side of the roadway, including shoulder, that is open to traffic shall be clear at all times.

When the plans show asphaltic concrete pavement layers to be placed in thicknesses of 2 inches (50 mm) or less, the contractor will be permitted to pave in one lane for a full day; the adjacent lane may be paved the following workday. When pavement layers are greater than 2 inches (50 mm) thickness, the contractor shall use a Wedged Joint and will be permitted to pave in one lane for a full day; the adjacent lane shall be paved the following day or place approximately 1/2 of each day's production in one lane and the remainder in the adjacent lane.

At the end of each day's paving operations, temporary pavement markings shall be in place and proper signs and barricades displayed. During the period that all lanes are open to traffic, the contractor shall neither store material nor park equipment on roadway shoulders.

All asphaltic concrete pavement new construction, overlays, and shoulder surfacing operations open to traffic shall be conducted in accordance with the following requirements.

1. **Shoulder Subgrade Preparation:** Any required embankment widening shall be completed before placement of the asphaltic concrete overlay. All vegetation shall be removed from existing shoulders before beginning temporary or final shoulder construction. When the Shoulder Wedge is required, the contractor shall blade and shape existing shoulder material to form a uniform surface under the wedge prior to placement of the asphaltic concrete overlay.

2. **Temporary Shoulder Construction:** Temporary shoulder construction described herein shall be completed at the end of each day's operations for all asphaltic concrete courses except the final wearing course. There shall be no drop-off from the pavement edge to the shoulder. The contractor shall blade and shape existing shoulder material against, and approximately level with, the top of the pavement surfacing to form a temporary shoulder with a uniform slope from the pavement edge to the existing shoulder line, or to a point 10 feet (3 m) from the pavement edge. If existing shoulder materials are insufficient, the contractor shall furnish, place and shape additional shoulder surfacing materials to form the temporary shoulder. Existing and/or additional materials for temporary shoulders shall be to the satisfaction of the engineer. Compaction shall be by approved methods.

No direct payment will be made for constructing and subsequently reshaping temporary shoulders, except payment for additional materials under appropriate pay items.

PUBLIC CONVENIENCE AND SAFETY (09/05): Subsection 107.07 of the Standard Specifications is amended to include the following.

STATE PROJECT NO. 064-01-0040

SPECIAL PROVISIONS

The procurement of police officers for public safety during construction shall be in accordance with the Department's Policy for Use of Police Officers in Construction/Maintenance Work Zones. The DOTD project engineer shall determine the need for police officers to assist in controlling traffic in a particular work zone. The number of officers needed, the tasks they will perform, and their location within the work zone will vary as a function of the zone type. Police officers shall be placed at strategic locations at times during construction as determined by the DOTD project engineer.

The three types of law enforcement services are Police Presence, Police Enforcement and Police Traffic Control. Police Presence is defined as the use of police officers at the beginning of the active work zone area utilizing their blue lights to gain the attention of drivers. Police Enforcement is utilized when enforcement is required to enhance the safe operation of the work zone. Police Traffic Control is to be used in detour / diversion situations.

The DOTD project engineer will extend an invitation to the appropriate Louisiana State Police (LSP) Troop Commander to attend the pre-construction conference.

Prior to commencing the work on the project, the contractor shall contact the LSP Troop Commander to obtain law enforcement services of police officers during construction. If the LSP Troop is unable to provide law enforcement services for the project work zone, the LSP Troop Commander or the contractor will extend the invitation to the appropriate local law enforcement authorities.

Police officers will report directly to the contractor. However, the contractor will not have the authority to direct the placement of the police officer or the patrol vehicle in situations that are contrary to established procedures and/or could endanger the police officer. The DOTD project engineer will make the final determination on all issues regarding police officer responsibility in work zones.

Prior to the beginning of the shift, the contractor shall provide a daily work zone briefing to the police officer. For major changes in traffic patterns, advanced notification shall be provided to the police agency working the detail. This information should also be provided to the motoring public through the DOTD district and / or the LSP Troop.

The contractor shall pay for law enforcement services provided by the police officers based on the hourly wage and vehicle rate fee schedule below. The Department will reimburse the contractor monthly for the incurred cost. The contractor shall furnish time record documentation with the request for reimbursement. The provisions of Subsection 109.04 shall not apply to this reimbursement.

The agreed upon fee schedule for police officers in the work zone is as follows:

\$25 per vehicle per day - vehicle use fee

\$40 per hour per officer (one officer per vehicle) (minimum 2 hours).

SUBLETTING OF CONTRACT (01/83): In accordance with Subsection 108.01 of the Standard Specifications, the following items are designated as "Specialty Items":

- Item 704-03-00100, Blocked Out Guard Rail
- Item 704-08-00200, Guard Rail Transition (Double Thrie Beam)
- Item 704-11-00100, Guard Rail End Treatment (Flared)
- Item 729-16-00300, Object Marker Assembly (Type 3)
- Item 730-09-00100, Electrical System
- Item 731-01-00100, Nonreflectorized Raised Pavement Markers

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Item 731-02-00100, Reflectorized Raised Pavement Markers
Item 731-02-02000, Plastic Pavement Striping (Solid Line)(4" Width)
(Thermoplastic 90 mil)
Item 732-03-02000, Plastic Pavement Striping (Broken Line)(4" Width)

CRITICAL PATH METHOD (CPM) FOR CONSTRUCTION PROGRESS SCHEDULING (12/08): Critical Path Methods (CPM) as described and with terms as defined in the Associated General Contractors of America (AGC) publication, *Construction Planning and Scheduling*, latest edition, shall be used in construction scheduling, establishing the critical items of work, and measuring progress of the work. In case of discrepancy between these specifications and *Construction Planning and Scheduling*, these specifications shall govern.

Section 108, Prosecution and Progress of the 2006 Standard Specifications and the Supplemental Specifications thereto is amended as follows.

Subsection 108.03, Construction Progress Schedule: This subsection is deleted and the following substituted.

The contractor shall submit to the project engineer for approval, CPM Construction Schedules, Summary of Activities tabulations, and Scheduled Earnings tabulations, all as described hereinafter, and altogether defined as "Construction Progress Schedule" or "Construction Schedule". The Construction Progress Schedule shall be based on the planned and specified finished work, the maintenance of traffic restrictions, and other design requirements given in the plans and specifications. Each sheet or page of each submittal shall be identified with the contractor's company name, state project number, project name, date prepared, revision dates, and sheet or page number. If the submittals are not prepared by the contractor's own staff, the company name of the preparer shall be shown on each sheet or page.

The critical activities as shown on the approved Construction Schedule will be considered in establishing the controlling item of work. If the Construction Schedule has not been approved, the engineer will establish the controlling work item and charge the contract time accordingly. Scheduled Earnings will be the basis for measurement of contractor's progress.

Approved Construction Progress Schedules and approved associated data shall become part of the contract documents. Un-approved Construction Progress Schedules and associated data shall not be considered relevant or applicable for any purposes during or after completion of the project and shall not be binding on the Department. The sequence of work as represented on the Construction Progress Schedule and subsequent updates shall be interpreted as being the intention of the contractor at the time that the schedule was made.

(a) Construction Schedule: The Construction Schedule shall be a Critical Path Method (CPM) graphic diagram, computer prepared, utilizing the Precedence Diagramming Method (PDM). For the calendar day contract, the Gregorian calendar shall be used.

The schedule shall show and describe the various activities of work required to complete the contract in sufficient detail so that all activities are readily identifiable and progress on the activities can be readily measured. Sufficient detail in bridge work means each element of work (piles, footings, columns, caps, rebar, cure time, etc.) of individual bents; each element of work in individual spans (girders, strip seal joints, Class AA, rebar, cure time, etc.); individual approach slabs; railings; rebar for all of the above as separate activities; and, miscellaneous other bridge work. Sufficient detail in road work means individual runs of pipe in drainage structures; individual box culverts; individual detour roads; the embankment, excavation, base and paving layers within definable geometric limits (e.g., from station to station, within a single ramp, etc.).

SPECIAL PROVISIONS

Physical locations of activities within definable geometric limits (e.g., from station to station, within a single ramp, individual bents, individual spans, etc.) shall be included in the activity description or shown in activity codes relative to each activity. It shall include submittals and approvals of critical samples, shop drawings, procedures, order lists (pilings for example), or other things that could have a significant schedule impact.

Relatively minor items of work, similar or non-similar, may be grouped together into one activity (or more). Activities to be performed by subcontractors shall be included and identified. The schedule shall show the sequence in which the activities are to be accomplished and their dependency relationships. The estimated contract earnings and pay item quantities associated with each activity shall be included, and the sum of the estimated earnings shall equal the current contract amount.

The duration of activities shall be in whole calendar days and no activity shall have duration of less than one calendar day or more than 30 calendar days. The ending event of the schedule shall be a finish milestone identified as "Contract Completion Date". Its sole predecessor shall be "Reserved Float". The sole predecessor of "Reserved Float" shall be "Final Inspection" which shall be a finish milestone and shall have as predecessors all of the activities that must be completed prior to the Department's final inspection of the work. The duration of "Reserved Float" is the difference between "Final Inspection" and "Contract Completion Date". "Reserved Float" is defined as that part of the shared float reserved exclusively for the contractor's use. The contract date for stipulated damages will be adjusted by change order to the beginning date of the activity "Reserved Float".

The Construction Schedule shall be computer plotted on sheets not larger than 22 inches x 36 inches and shall show a continuous flow of information from left to right with no arrows from right to left and shall be drawn to a time scale of calendar days. The critical path shall be clearly identified. Resource constraints shall be identified, as shall scheduled starts or completions imposed on the schedule by the contractor.

The contractor shall submit color-coded graphics in the required multiple copies. The choice of the color coding must remain in effect for the life of the contract.

The contractor shall provide the Department with the means to electronically translate the Construction Schedule data into a configuration that can be read and processed by the Department or its consultants' hardware and Primavera software. If the contractor elects to use SureTrak Project Manager software, the following defaults must be placed: (1) resources shall be non-driving; (2) default activity type shall be "Task"; (3) activity type shall not be "Independent"; (4) duration display style shall be "Day (d)"; (5) float style shall be "Days"; and, (6) dates time format shall be "Don't show time". The revenue feature in SureTrak Project Manager does not translate to Primavera Project Planner (P3), so in SureTrak Project Manager the earnings must be entered as cost data. In both the SureTrak Project Manager and in the Primavera Project Planner (P3) "Back up" menu selection, the contractor will ensure that the option "Remove access list during backup" is checked. In addition, the project must be saved in SureTrak as a "Concentric P3" Type project.

(b) Summary of Activities: The Summary of Activities shall be a tabulation of all activities shown on the Construction Schedule, and shall accurately reflect the data used in preparation of the Construction Schedule. The summary shall be computer generated and sequenced by activity number. Each activity shall include as a minimum the following, in calendar days:

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

1. Activity numbers.
2. Activity description.
3. Estimated duration of activity.
4. Early start.
5. Late start.
6. Constrained start, if constrained.
7. Early finish.
8. Late finish.
9. Constrained finish, if constrained.
10. Status (whether critical).
11. Free float.
12. Total float.
13. Monetary value of the activity.
14. Remaining duration and calendar days used.

(c) **Scheduled Earnings:** The Scheduled Earnings shall be a product of the software creating the Construction Schedule and shall be a tabulation of accumulated scheduled contract earnings, based on late starts, measured in accumulated dollars for all activities, for each monthly partial estimate. The tabulation shall be prepared from the Construction Schedule and shall be computer generated. The Schedule of Earnings will not include advanced payments for stockpiled materials.

(d) **Cash Management Document:** When designated as a Cash Management Project, prior to the issuance of the Notice to Proceed, the contractor shall provide to the Department and obtain approval from the Department of the Scheduled Earnings report as described above, except that it shall be based on early starts. The Department will use this report for its cash management purposes. Failure of the contractor to provide and obtain approval of the Scheduled Earnings Report will result in withholding of any funds due the contractor.

(e) **Submittal:** Prior to or at the preconstruction conference the contractor shall submit to the project engineer for approval, in triplicate, a Construction Schedule giving a proposed schedule of operations that provides for completion of the work, a Summary of Activities tabulation, a Scheduled Earnings tabulation, and a Forty-Five Day Look-Ahead task list. The contractor shall also submit the Construction Schedule data electronically capable of being processed with the hardware and software being used by the Department or its consultants.

Within 7 calendar days after receipt of the submittal, the project engineer and contractor shall meet and review the proposed schedules and tabulations. Any revisions resulting from the review shall be submitted, in triplicate, for approval within 7 calendar days after the meeting. This procedure will be repeated as necessary. The approved final schedule shall be called the "Baseline Schedule".

Failure to have obtained approval of a Baseline Schedule and tabulations within 20 calendar days after the Notice to Proceed will result in withholding twenty-five percent of the amount of partial estimates until such schedules and tabulations are submitted and approved. Failure to have obtained approval of a Baseline Schedule and tabulations within the third estimate period may result in the Department's determination that the contractor is in default under the provisions of Subsection 108.09.

(f) **Construction Schedule Updates:** The contractor shall update and submit each month, within 7 calendar days after the partial estimate is submitted, the Construction Schedule critical path diagram, Summary of Activities tabulation, Scheduled Earnings tabulation, a Forty-Five Day Look-Ahead task list, and a current Turnaround Document as follows:

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

- (1) The updated Construction Schedule critical path diagram will be in the same form as that submitted in (e) Submittal. It will be updated for progress through the estimate closing date, recalculated and plotted. The contractor will revise, adjust, and recalculate the schedule so that the difference in the work completion date calculated by the Retained Logic Method shall not be more than one-half an estimate period different from the work completion date calculated by the Progress Override Method. The Construction Schedule critical path diagram will show both the look ahead critical path for the duration of the project and the look back critical path as reported in the prior months.
- (2) The updated Summary of Activities and Scheduled Earnings tabulation will be in the same form as that submitted in (e) Submittal. It will be updated for progress through the estimate closing date, recalculated and printed.
- (3) The Forty-Five Day Look-Ahead task list will show all incomplete activities which the logic has determined either should be or may be active during the next forty-five days. It will be plotted in a graphic form similar to that of the Construction Schedule critical path diagram.
- (4) The Turnaround Document will be a listing of the log record of a new activity added monthly to the schedule for the purpose of keeping a current presentation of the following information:
 - a. The original contract completion date presented as actual calendar date.
 - b. The number of days added to the contract by approved change order (if any, if none, so state).
 - c. The present computed completion date presented as an actual calendar date and as a workday number, if applicable.
 - d. A list of activities deleted and added (if any, if none, so state), including their descriptions.
 - e. A list of logic changes and the reasons for the changes (if any, if none, so state).
 - f. A list of budget changes and the reasons for the changes (if any, if none, so state).
 - g. A narrative description of any other changes to the Construction Schedule critical path diagram.

Failure to submit the monthly updates of the Construction Progress Schedules within 7 calendar days after the partial estimate was submitted will result in withholding of twenty-five percent of the amount of partial estimate payments until such schedules are submitted and approved. Failure to have obtained approval of three consecutive monthly updates of the Construction Progress Schedule may result in the Department's determination that the contractor is in default under the provisions of Subsection 108.09.

(g) CPM Reviews: The project engineer will designate the time and location for review of construction progress. The contractor's representative designated under Subsection 105.05 will be required to attend the construction progress review or a contractor's representative directed by the project engineer shall attend. The current approved Construction Schedule, Summary of Activities and Scheduled Earnings tabulations shall be reviewed, and required or desired changes discussed and documented.

As a minimum the following shall be discussed: contractor's compliance with approved schedules and tabulations, delays, proposed and approved contract quantity increases and decreases, proposed and approved extra work, actual starts, durations and finishes, and actual contract earnings.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

If requested by the project engineer, within 7 calendar days following the review meeting the contractor shall submit to the project engineer for approval, in triplicate, a revised Construction Schedule, Summary of Activities tabulation, and Scheduled Earnings tabulation, and Forty-Five Day Look-Ahead, all in accordance with paragraph (e) Submittal, and all brought up to date to reflect agreements made at the review meeting. Failure to submit the revision of the Construction Progress Schedules within 7 calendar days after the request will result in withholding of twenty-five percent of the amount of partial estimate payments until such schedules are submitted and approved. Failure to have obtained approval of three consecutive monthly updates of the Construction Progress Schedule may result in the Department's determination that the contractor is in default under the provisions of Subsection 108.09.

(h) The CPM Construction Schedule will be provided at no direct pay.

Subsection 108.04, Prosecution of Work: Heading (b), Disqualification, is deleted and the following is substituted.

(b) Disqualification. The contractor's progress will be determined monthly at the time of each partial estimate, and will be based on the total amount of money earned by the contractor, excluding advanced stockpiled material, as shown by the partial estimate compared to scheduled earnings as shown by the approved Scheduled Earnings tabulation, as of the end of the partial estimate period. If the contractor's progress is more than 10 percent behind scheduled earnings, the contractor may be notified that he is not prosecuting the work in an acceptable manner. If requested by the Department, the contractor must meet with and provide the project engineer with an acceptable written plan which details how the contractor will re-gain lost progress and prosecute remaining work. If the contractor's progress is more than 20 percent behind the elapsed contract time, the contractor and the surety will be notified that he is not prosecuting the work in an acceptable manner. The contractor must meet with and provide the project engineer with an acceptable written plan which details how the contractor will re-gain lost progress and prosecute remaining work.

A contractor who is in default in accordance with Subsection 108.09 (a) (1) and actual earnings versus scheduled earnings are 5.0 percent or more, the contractor shall be immediately disqualified. The contractor shall remain disqualified until the project has received a final inspection and has been recommended for final acceptance. Should the surety or the Department take over prosecution of the work, the contractor shall remain disqualified for a period of one year from the completion of the project, unless debarment proceedings are instituted.

During the period of disqualification, the contractor will not be permitted to bid on contracts nor be approved as a subcontractor on contracts. Any bid submitted by the contractor during the period of disqualification will be considered irregular.

Subsection 108.07, Determination and Extension of Contract Time: This subsection is amended as follows.

The third and fourth paragraphs are deleted and the following substituted.

The contract time for the work as awarded is based on the original quantities as defined in Subsection 102.05 and includes time to procure material, equipment and an adequate labor force to complete the work. If satisfactory fulfillment of the contract requires performance of work in greater quantities than those specified, or requires performance of extra work in accordance with Subsection 104.02 and the contractor requests additional contract time, the contractor shall submit a proposed CPM schedule based on the latest approved CPM schedule showing the increased time and revised completion date for approval by the Department. When the contract is altered in accordance with Subsection 104.02 and the engineer determines that a reduction in

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

contract time is warranted due to decreased effort, the contractor shall submit a proposed CPM schedule based on the latest approved CPM schedule showing the reduced time and revised completion date for approval by the Department. A CPM schedule will be required for the engineer to process a change order that either increases or decreases the contract time.

If the contractor finds it impossible, for reasons beyond the contractor's control, to complete the work within the contract time as specified or as extended in accordance with the provisions of this subsection, the contractor shall, at the time the delay occurs make a written request to the engineer for an extension of time setting forth therein the reasons which justify granting the request. Such written request shall conform to the requirements of EDSM III.1.1.28. If the request does not so conform, the contractor hereby agrees to and shall be deemed to have expressly waived any claim for such additional time. The contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the engineer finds that the work was delayed because of conditions beyond the control and without the fault of the contractor, the engineer may extend the contract time in such amount as conditions justify. The contractor's written request to the engineer for an extension of contract time shall include a proposed CPM schedule based on the latest approved CPM schedule update showing the increased time and revised completion date for approval by the Department. This CPM schedule document will be required for the engineer to process a change order that changes the contract time.

PROGRESS PHOTOGRAPHS (04/01): The contractor shall furnish the following color photographs of the work during this project, at no direct pay.

Four ground photographs shall be taken from points designated by the engineer at each of the following stages.

- (a) at the beginning of construction.
- (b) when the project is 25 percent complete.
- (c) when the project is 50 percent complete.
- (d) when the project is 100 percent complete.

Upon completion of the project, two aerial photographs shall be taken, one from each end of the project.

The contractor shall furnish the engineer with six prints of each negative approximately 8 inches x 11 inches size, glossy finish, mounted on linen, with a 1/2 inch binding strip along one of the long edges. Overall size of prints, including binding strip and margins, shall not exceed 8 1/2 inches x 11 inches. A 2 1/2 inches x 2 1/2 inches title block shall be provided on each print, preferably in the lower right corner, containing the following information.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

STATE PROJECT NO.
NAME OF PROJECT
CONTRACTOR
DESCRIPTION OF PHOTO

FED. AID PROJECT NO.
STATE ROUTE NO.
PHOTO NO.
DATE

DETERMINATION AND EXTENSION OF CONTRACT TIME (12/08): Subsection 108.07, Determination and Extension of Contract Time, is amended to include the following.

The contractor shall document for each month of scheduled construction, the occurrence of adverse weather conditions having an impact on controlling items of work. An adverse

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

weather day is a previously scheduled or normally scheduled work day on which rainfall, wet conditions or cold weather will prevent construction operations on the controlling work activity from proceeding for at least 5 continuous hours of the day or 65 percent of the normal work day, whichever is greater, with the normal working force engaged in performing the controlling item of work. If the contractor submits a written request for additional contract time due to adverse weather conditions, the contractor's request will be considered only after the Department agrees with the days and then only for adverse weather days in excess of the allowable number of days per month stated below. Adverse weather days will be documented by the Engineer and agreed upon monthly. Adverse weather days will be prorated for partial months when a work order or final inspection is issued other than the first or last of the month and agreed to by the Department. If the contractor is being considered for disqualification by the Department, an equitable adjustment in contract time may be made at the end of the original contract period, including all days added by approved change orders. Contract time will be adjusted by comparing the actual number of adverse weather days to the statistical number of adverse weather days over the specific time period per the table below. The resulting number of adverse weather days will be multiplied by 1.45 to convert to calendar days. Adjustments for adverse weather cannot result in a contract time reduction. Once adjusted, a new adverse weather day accounting will begin using the adverse weather conditions having an impact on the controlling items of work, in excess of the allowable number of days per month stated below. A second and final contract time adjustment will then be done at the final acceptance of the project. An adjustment in the contract time due to adverse weather will not be cause for an adjustment in the contract amount. There will be no direct or indirect cost reimbursement for excess adverse weather days.

The following are anticipated adverse weather days that the contractor shall include in each month of his calendar day construction schedule.

January	10 days	May	5 days	September	4 days
February	9 days	June	6 days	October	3 days
March	8 days	July	6 days	November	7 days
April	7 days	August	5 days	December	7 days

PAYMENT ADJUSTMENT (12/08): Section 109, Measurement and Payment of the 2006 Standard Specifications and the supplemental specifications thereto, is amended to add the following.

This project is designated for payment adjustment for asphalt cements and fuels in accordance with Subsection 109.09 as follows.

109.09 PAYMENT ADJUSTMENT (ASPHALT CEMENTS AND FUELS).

(a) General: Payment for contract items indicated herein will be adjusted to compensate for cost differentials of Performance Graded (PG) asphalt cements, gasoline, and diesel fuel when such costs increase or decrease more than 5 percent from the Department's established base prices for these items. The base price indices for asphalt cements and fuels will be the monthly price indices in effect at the time bids are opened for the project. The base price indices for

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

asphalt cements will be as stated in paragraph (b) below. The base price index for fuels will be as stated in paragraph (c) below.

Payment adjustments will be made each monthly estimate period when a price index for this period varies more than 5 percent from its respective base price index. The monthly price indices to be used with each monthly estimate will be the price indices for the month in which the estimate period begins.

If the project is placed in default, payment adjustments will be based on the monthly price indices used for the last monthly estimate period prior to the project being placed in default, unless a monthly price index decreases in which case the lower monthly price index will be used.

If it is determined after completion of work on any eligible item that the total quantity paid to date must be adjusted to reflect more accurate quantity determinations, the Department will prorate the additional quantity to be added or subtracted over all previous estimate periods in which the item of work was performed in order to determine additional payment adjustments. If payment adjustments were made during any of these partial estimate periods, this added or subtracted quantity that has been prorated will likewise have payment adjustments calculated and included.

(b) Performance Graded (PG) Asphalt Cements: The base price index will be the monthly price index in effect at the time of bid opening as shown elsewhere herein. The monthly price indices will be the average, excluding the extreme outliers, of the unit prices for PG 64-22, the average, excluding the extreme outliers, of the unit prices for PG 70-22m, and the average, excluding the extreme outliers, of the unit prices for PG 76-22m. The monthly prices for each of these asphalt materials will be F.O.B. refinery or terminal as determined from the quoted prices effective on the first calendar day of each month from suppliers of these materials. Suppliers considered are those who have requested to participate in the liquid asphalt index determination and have supplied materials on DOTD projects within the past twelve months. These suppliers and materials shall be listed on the Department's Qualified Products List (QPL 41) and must be marketed in Louisiana. For Asphalt Cements not listed above, the following shall be considered equivalent for payment adjustments:

Pay Item Equivalents Eligible for Asphalt Pay Adjustment

Performance Graded Asphalt Cement	Equivalent PG Asphalt Cement for Payment Adjustment
PG 58-28	PG 64-22
PG 64-22	PG 64-22
PG 70-22m	PG 70-22m
PG 76-22m	PG 76-22m
PG 82-22rm	PG 64-22

Payment adjustments will be made in accordance with the following formulas:

If Monthly Price Index exceeds Base Price Index,
$$P_a = (A - 1.05B) \times C \times D \times (1.00 + T)$$

If Base Price Index exceeds Monthly Price Index,
$$P_a = (0.95B - A) \times C \times D \times (1.00 + T)$$

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Where:

- P_a = Price adjustment (increase or decrease) for asphalt cement.
A = Monthly Price Index for respective PG 64-22, PG 70-22m, or PG 76-22m in dollars per ton/megagram.
B = Base Price Index for respective PG 64-22, PG 70-22m, or PG 76-22m in dollars per ton/megagram.
C = Tons/megagrams of asphaltic concrete.
D = Percent of respective asphalt cement, per job mix formula, in decimals.
T = Louisiana sales tax percentage, in decimals.
(Note: Local tax is not considered)

The engineer will furnish the weights (mass) of asphaltic concrete placed during the monthly estimate period with the respective asphalt cement content, excluding the asphalt content in reclaimed asphaltic pavement (RAP) as per job mix formula. If the asphalt cement content changes during the estimate period, the respective weight (mass) of asphaltic concrete produced at each cement content will be reported.

All contract pay items using PG 58-28, PG 64-22, PG 70-22m, PG 76-22m, and PG 82-22rm shall be eligible for payment adjustments of asphalt materials; except no payment adjustment will be made for contract pay items under Subsection 510-01, "Pavement Patching", Section 507, "Asphaltic Surface Treatment", nor for any emulsions of cutbacks.

Item 510-02, Pavement Widening, and all contract pay items under Sections 502 and 508, will be eligible for payment adjustments of asphalt materials. No payment adjustment will be made for other asphalt materials, including emulsions and cutbacks.

The base price indices for asphalt cements and fuels will be posted on the DOTD internet website before the 10th calendar day of each month at the following URL: www.dotd.louisiana.gov/lettings/lac_price_index/priceindices.asp.

(c) Fuels: The base price index for this project will be the monthly price index in effect when bids are opened for the project. The monthly price index will be the minimum price quotations for unleaded gasoline and No. 2 diesel fuel listed for the New Orleans area in *Platt's Oilgram and Price Report* effective on the first calendar day of each month.

Payment adjustment will be made in accordance with the following formulas:

If Monthly Price Index exceeds Base Price Index,

$$P_a = (A - 1.05B) \times Q \times F$$

If Base Price Index exceeds Monthly Price Index,

$$P_a = (0.95B - A) \times Q \times F$$

Where:

- P_a = Price adjustment.
A = Monthly Price Index in dollars per gallon/liter.
B = Base Price Index in dollars per gallon/liter.
Q = Pay Item Quantity (Pay Units).
F = Fuel Usage Factor Gal (L)/Pay Unit.

The following is a listing of contract pay items that are eligible for payment adjustment and the fuel usage factors that will be used in making such adjustment. Contract items that

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

expand the items listed herein by use of letter or number designations are also eligible for fuel price adjustments; for example:

Item 601-01-G, Portland Cement Concrete Pavement 8 inches (200 mm) thick.

**STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS**

**ELIGIBLE CONTRACT PAY ITEMS & FUEL USAGE FACTORS FOR FUEL
PAYMENT ADJUSTMENT⁷**

ITEM NO.	PAY ITEM	UNITS	MIN. ORIGINAL CONTRACT QUANTITY FOR PAY ADJUSTMENT	FUEL USAGE FACTORS	
				Diesel ²	Gasoline
203-01 ¹	General Excavation	gal/cu yd	10,000 cu yd	0.29	0.15
203-02	Drainage Excavation	gal/cu yd	10,000 cu yd	0.29	0.15
203-03 ¹	Embankment	gal/cu yd	10,000 cu yd	0.29	0.15
203-04	Nonplastic Embankment	gal/cu yd	10,000 cu yd	0.29	0.15
203-07	Borrow (Vehicular Measurement)	gal/cu yd	10,000 cu yd	0.29	0.15
301-01	Class I Base Course	gal/cu yd	3,000 cu yd	0.88	0.57
301-02	Class I Base Course (" Thick)	gal/sq yd	50,000 sq yd	0.04	0.03
302-01	Class II Base Course	gal/cu yd	3,000 cu yd	0.88	0.57
302-02	Class II Base Course (" Thick)	gal/sq yd	50,000 sq yd	0.04	0.03
303-01	In-Place Cement Stabilized Base Course	gal/sq yd	50,000 sq yd	0.04	0.03
304-02	Lime Treatment (Type B)	gal/sq yd	50,000 sq yd	0.04	0.03
304-03	Lime Treatment (Type C)	gal/sq yd	50,000 sq yd	0.04	0.03
304-04	Lime Treatment (Type D)	gal/sq yd	50,000 sq yd	0.04	0.03
305-01	Subgrade Layer (" Thick)	gal/sq yd	50,000 sq yd	0.04	0.03
308-01	In-Place Cement Treated Base Course	gal/sq yd	50,000 sq yd	0.04	0.03
401-01	Aggregate Surface Course (Net Section)	gal/cu yd	3,000 cu yd	0.88	0.57
401-02	Aggregate Surface Course (Adjusted Vehicular Measurement)	gal/cu yd	3,000 cu yd	0.88	0.57
502-01	Superpave Asphaltic Concrete	gal/ton	1000 ton	2.40 ³	0.2
502-02	Superpave Asphaltic Concrete	gal/cu yd	500 cu yd	4.80 ⁴	0.4
502-03	Superpave Asphaltic Concrete (" Thick)	gal/sq yd	10,000 sq yd	0.13 ^{5,6}	0.01 ⁶
508-01	Asphaltic Concrete (SMA)	gal/ton	1000 ton	2.40 ³	0.2
510-02	Pavement Widening	gal/sq yd	3,000 sq yd	0.86	0.24
601-01	Portland Cement Concrete Pavement (" Thick)	gal/sq yd	15,000 sq yd	0.11	0.15

- 1 If project has both 203-01 & 203-03, only the item with larger quantity is eligible.
- 2 For fuel adjustment purposes, the term "diesel" shall represent No. 2 or No. 4 fuel oils or any of the liquified petroleum gases, such as propane or butane.
- 3 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 1.67 gal/ton.
- 4 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 13.34 gal/cu yd.
- 5 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 0.09 gal/sq yd.
- 6 Per inch of thickness.
- 7 No fuel adjustment will be allowed for waste oil.

**STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS**

**ELIGIBLE CONTRACT PAY ITEMS & FUEL USAGE FACTORS FOR FUEL
PAYMENT ADJUSTMENT (METRIC)⁷**

ITEM NO.	PAY ITEM	UNITS	MIN. ORIGINAL CONTRACT QUANTITY FOR PAY ADJUSTMENT	FUEL USAGE FACTORS	
				Diesel ²	Gasoline
203-01 ¹	General Excavation	l/m ³	7,600 m ³	1.44	0.74
203-02	Drainage Excavation	l/m ³	7,600 m ³	1.44	0.74
203-03 ¹	Embankment	l/m ³	7,600 m ³	1.44	0.74
203-04	Nonplastic Embankment	l/m ³	7,600 m ³	1.44	0.74
203-07	Borrow (Vehicular Measurement)	l/m ³	7,600 m ³	1.44	0.74
301-01	Class I Base Course	l/m ³	2,300 m ³	4.36	2.82
301-02	Class I Base Course (mm Thick)	l/m ²	41,800 m ²	0.18	0.14
302-01	Class II Base Course	l/m ³	2,300 m ³	4.36	2.82
302-02	Class II Base Course (mm Thick)	l/m ²	41,800 m ²	0.18	0.14
303-01	In-Place Cement Stabilized Base Course	l/m ²	41,800 m ²	0.18	0.14
304-02	Lime Treatment (Type B)	l/m ²	41,800 m ²	0.18	0.14
304-03	Lime Treatment (Type C)	l/m ²	41,800 m ²	0.18	0.14
304-04	Lime Treatment (Type D)	l/m ²	41,800 m ²	0.18	0.14
305-01	Subgrade Layer (mm Thick)	l/m ²	41,800 m ²	0.18	0.14
308-01	In-Place Cement Stabilized Base Course	l/m ²	41,800 m ²	0.18	0.14
401-01	Aggregate Surface Course (Net Section)	l/m ³	2,300 m ³	4.36	2.82
401-02	Aggregate Surface Course (Adjusted Vehicular Measurement)	l/m ³	2,300 m ³	4.36	2.82
502-01	Superpave Asphaltic Concrete	l/Mg	900 Mg	10.01 ³	0.83
502-02	Superpave Asphaltic Concrete	l/m ³	400 m ³	23.77 ⁴	1.98
502-03	Superpave Asphaltic Concrete (mm Thick)	l/m ²	8,400 m ²	0.59 ^{5,6}	0.45 ⁶
508-01	Asphaltic Concrete (SMA)	l/Mg	900 Mg	10.01 ³	0.83
510-02	Pavement Widening	l/m ²	2,500 m ²	3.89	1.09
601-01	Portland Cement Concrete Pavement (mm Thick)	l/m ²	12,500 m ²	0.5	0.68

- 1 If project has both 203-01 & 203-03, only the item with larger quantity is eligible.
- 2 For fuel adjustment purposes, the term "diesel" shall represent No. 2 or No. 4 fuel oils or any of the liquified petroleum gases, such as propane or butane.
- 3 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 6.97 l/mg.
- 4 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 16.53 l/m³.
- 5 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 0.41 l/m².
- 6 Per mm of thickness.
- 7 No fuel adjustment will be allowed for waste oil.

SUPERPAVE ASPHALTIC CONCRETE MIXTURES (11/08): Section 502, Superpave Asphaltic Concrete Mixtures of the 2006 Standard Specifications as amended by the supplemental specifications thereto, is further amended as follows.

Subsection 502.04, Job Mix Formula Validation.

Delete the first sentence of the sixth paragraph and substitute the following.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

A JMF is considered validated if the following parameters are 71 percent within limits of the JMF and meet the specifications requirements.

Subsection 502.05, Plant Quality Control.

Delete the first paragraph and substitute the following.

For quality control purposes, the contractor shall obtain a minimum of two (2) samples of mixture from each subplot using a stratified random sampling approach. Test results for theoretical maximum specific gravity (G_{mm}) and measured bulk specific gravity (G_{mb}) at N_{max} and percent G_{mm} at $N_{initial}$, on samples of each subplot shall be reported. Control charts may be requested by the engineer if mixture problems develop. Quality control gyratory samples may be aged or unaged at the contractor's option, but the method chosen shall be used consistently throughout the project. If aged samples are used, report the measured G_{mb} at N_{max} . If unaged samples are used, report the estimated G_{mb} at N_{max} . One loose mix sample shall be taken from each subplot after placement of the mix in the truck. The mix shall be tested by the contractor at the plant for aggregate gradation, asphalt content and percent crushed aggregate. The mix shall be tested in accordance with DOTD TR 309, TR 323 and TR 306. The lot average and standard deviation shall be determined for aggregate gradation and asphalt content. The percent within limits (PWL) shall be determined on the Nos. 8 and 200 (2.36 mm and 75 μ m) sieves and for G_{mm} . Corrective action shall be taken if these parameters fall below 71 PWL. For each lot, the contractor shall report all quality control data to the DOTD Certified Plant Technician. The full range of gradation mix tolerances will be allowed even if they fall outside the control points. The District Laboratory Engineer may require re-validation of the mix when the average of the Quality Control data indicates non-compliance with the specified limits or tolerances.

Subsection 502.15, Measurement.

Subheading (c), Surface Tolerance Incentive Measurement.

Delete the first paragraph and substitute the following.

At the completion of construction of the project, an independent certified profiler such as that of a private company or the Materials and Testing Section, approved by the Department, shall be used to measure a continuous profile from the start station to the end station of the construction project for the purpose of determining qualification for incentive pay under Subsection 502.16(e). Bridges and 300 feet (90 m) on each end of the bridge will be excluded from measurements for surface tolerance incentive pay.

Delete Table 502-7A, Payment Adjustment Schedule for Plant Acceptance and substitute the following.

Table 502-7A	
Payment Adjustment Schedule for Plant Acceptance	
Air Voids PWL (90 AQL)	Percent Payment
71-100	100
61-70	90
51-60	80
≤ 50	50 or Remove ¹

¹At the option of the Department after investigation.

Delete Table 502-7B, Payment Adjustment Schedule for Roadway Density and substitute the following.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Table 502-7B
Payment Adjustment Schedule for Roadway Density

Roadway Density PWL (90 AQL)	Percent Payment
99-100	102
81-98	100
71-80	95
51-70	80
≤50	50 or Remove ¹

¹At the option of the Department after investigation.

Delete Table 502-8A, Payment Adjustment Schedules for Longitudinal Surface Tolerance, Maximum International Roughness Index, inches per mile (mm per km) and substitute the following.

Table 502-8A
Payment Adjustment Schedules for Longitudinal
Surface Tolerance, Maximum International Roughness Index,
inches per mile (mm per km)

Percent of Contract Unit Price (by Sublot) ¹	102% ²	100%	90%	80%	50% or Remove ³
Category A All Interstates, Multi-Lift New Construction and Overlays of More than two Lifts	<45 (<710)	<65 (<1030)	65-75 (1030-1180)	NA	>75 (>1180)
Category B One or Two Lift Overlays Over Cold Planed Surfaces, and Two-Lift Overlays Over Existing Surfaces ⁴	<55 (<870)	<75 (<1180)	75-89 (1180-1400)	NA	>89 (>1400)
Category C Single-Lift Overlays Over Existing Surfaces ⁴	N/A	<85 (<1340)	85-95 (1340-1500)	>95-110 (>1500-1740)	>110 (>1740)
Longitudinal Surface Tolerance Incentive Pay, Final Completion, Average of All Travel Lanes ⁵	≤ 45 (≤ 710)				

¹Or portion of sublot placed on the project.

²Maximum payment for sublots with exception areas, exclusions or grinding is 100 percent, unless the excluded area is a bridge end.

³At the option of the engineer.

⁴ Existing surfaces include reconstructed bases without profile grade control.

⁵Only Category A projects are eligible for incentive. However, any grinding except within 300 feet (90 m) of a bridge end will cause the roadway to be ineligible for surface tolerance incentive pay. Measurements must be verified by an independent entity.

Delete Table 502-8B, Individual Wheelpath Deficient Area Limits, Maximum International Roughness Index, Inches per Mile (mm per km) and substitute the following.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Table 502-8B
Individual Wheelpath Deficient Area Limits
Maximum International Roughness Index, inches per mile (mm per km)

Any 0.05 Mile (0.08 km) Segment	Wearing Course	Binder Course
Category A	89 (1400)	130 (2050)
Category B	99 (1560)	150 (2370)
Category C	N/A	N/A

TEMPORARY TRAFFIC CONTROL (03/09): Section 713 of the 2006 Standard Specifications and the Supplemental Specifications is amended as follows:

Subsection 713.04, Temporary Signs and Barricades, is amended to include the following:

(d) Project Signs: The contractor shall furnish, install, maintain, and upon completion of the project remove "project signs" in accordance with the following requirements.

Project signs shall conform to the requirements of Section 713 and the project sign detail contained elsewhere herein. Shop drawings will be furnished to the successful bidder by contacting the Department's Traffic Services Sign Shop at (225) 935-0121 or (225) 935-0142.

Project signs shall be required at the beginning and end of the project and shall follow sign G-20-1, "Road Work Next 'X' Miles", or as directed by the engineer.

Payment for project signs shall be included in the contract unit price for Item 713-01 Temporary Signs and Barricades.

FIELD LABORATORIES: Amend Subsection 722.01 to replace the first sentence of the second paragraph with the following:

This work consists of furnishing laboratory buildings at the project sites for soils and aggregates testing and performing any other necessary inspection, sampling, and testing of the work during construction.

Subsection 722.02 – General Requirements:

Amend Subsection 722.02 to replace the first sentence of the second paragraph with the following:

The building shall have a minimum floor space of 700 square feet or other approved size that provides sufficient space with a minimum ceiling height of 7 feet, with two full size plan hanging racks, two full size (5 drawer) filing cabinets, telephone service (two lines), high speed internet, plain paper fax machine, color laser-jet printer, and one copy machine with the ability to copy 8.5 X 11, 8.5 X 14 & 11 X 17 sheets, along with all other requirements per this section.

Subsection 722.05 – Measurement:

Amend Subsection 722.05 to include the following:

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

The contractor shall be responsible for all utility hook-ups and all related maintenance costs including telephone bill (w/fax service) and high speed internet service.

PLASTIC PAVEMENT MARKINGS (09/07): Section 732 of the 2006 Standard Specifications and the supplemental specifications thereto, is amended as follows.

Subsection 732.03, Construction Requirements for Plastic Pavement Marking Material.

Heading (a) is amended as follows.

The first paragraph is deleted and the following substituted.

(a) Equipment for Standard (Flat) Thermoplastic Marking Material: The application equipment shall consist of an extrusion die or a ribbon gun that simultaneously deposits and shapes lines at a thickness of 90 mils (2.3 mm) or greater on the pavement surface. When restriping onto existing thermoplastic markings, only a ribbon gun shall be used. Finished markings shall be continuous and uniform in shape, and have clear and sharp dimensions. Applicators shall be capable of producing various widths of traffic markings. Applicators shall produce sharply defined lines and provide means for cleanly cutting off stripe ends and applying broken lines. The ribbon extrusion die or shaping die shall not be more than 2 inches (50 mm) above the roadway surface during application. A spray application will only be allowed when applying 40 mil (1.0 mm) thermoplastic.

Heading (e) is deleted and the following substituted.

(e) Application of Surface Primer: A single component surface primer will be required prior to placement of preformed plastic markings over an existing painted stripe, over oxidized asphalt, or when striping over existing thermoplastic on portland cement concrete surfaces unless otherwise directed by the engineer. A two component epoxy primer sealer will be required prior to placement of thermoplastic materials on portland cement concrete surfaces unless otherwise directed by the engineer.

**CLASS P(M)(HPC) CONCRETE FOR PRECAST PRESTRESSED CONCRETE PILES
SECTIONS 805, 901, 1003, AND 1009**

DESCRIPTION.

Section 805, Structural Concrete is amended as follows.

Subsection 805.01, Description, is amended by deleting the first paragraph and substituting the following:

This special provision includes the requirements for furnishing, placing, finishing and curing high performance portland cement concrete (Class P(M)(HPC)) for precast prestressed concrete piles. Except as modified in this special provision, Class P(M)(HPC) Concrete shall conform to Sections 805, 901, 1001, 1003, 1009, 1011, and 1018 of the 2006 Louisiana Standard Specifications for Roads and Bridges as previously amended by supplemental specifications. It also amends DOTD Testing and Procedures Manuals, TR 226-95/226M and TR 230-95/230M.

MATERIALS.

Section 805, Structural Concrete is further amended as follows.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Subsection 805.02 Materials is amended to include the following in Table 805-1:

Concrete Class	Use
P(M)(HPC)	High Performance concrete precast bridge members (Piles)

Section 901, Portland Cement Concrete is amended as follows.

Subsection 901.02 Materials is amended to include the following:

The use of silica fume conforming to AASHTO M307, with the exception of Loss on Ignition (LOI) which shall not exceed 6.0 percent, or ASTM C 1240, will be permitted.

CONSTRUCTION REQUIREMENTS.

Section 805, Structural Concrete is further amended as follows.

Subsection 805.14, Prestressed Concrete is amended as follows:

Heading (e), Curing, is deleted and the following substituted:

To establish adequacy of curing methods and to determine whether concrete has attained the required compressive strength, a minimum of eight test cylinders shall be made and cured under the same condition as the corresponding member using a thermocouple controlled device (TCD). Three cylinders shall be tested no later than 56 calendar days after casting to determine that the required strength has been achieved. The remaining five cylinders may be tested at any time as required by the contractor. However, no more than three cylinders shall be tested in one day. If all five cylinders have been tested and concrete has not obtained required strength, the members involved shall be held at the plant until the 56-day cylinders are tested. If the average 56-day concrete cylinder strength has not achieved the required strength, all members involved will be subject to rejection. Acceptance will be made in accordance with the Department's manual entitled "Application of Quality Assurance Specifications for Precast-Prestressed Concrete Plants." Concrete elements shall be cured for a minimum duration of 72 hours at 100 percent relative humidity. If the steam curing process stops before 72 hours, continue curing the concrete element for the remaining part of the 72-hour curing period by continuous moisture curing. Hot weather concrete limitations as stipulated in Subsection 901.11(b) shall not be applicable for steam curing; however, precautions such as cooling of forms will be required.

Steam curing shall be done under a suitable enclosure to contain the steam in order to minimize moisture and heat losses. The contractor shall ensure that the enclosure is closed around the ends of the piles closest to the anchorage abutments at each end of the prestressing bed. Initial application of steam shall begin only after concrete has reached its initial set as determined by ASTM C403. When used, steam shall be at 100 percent relative humidity. Application of steam shall not be directly on concrete. During application of steam, concrete temperature shall be increased at a rate not to exceed 40° F per hour until the desired concrete temperature is achieved. The concrete temperature shall not exceed 160° F. Steam curing may continue until concrete reaches release strength. At the contractor's option, the application of steam may be reduced or discontinued to ensure that the concrete temperature does not exceed 160° F. If structural defects occur, the defective members will be rejected. Contractors shall

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

detension strands before the internal concrete temperature has decreased to 20° F less than its maximum temperature. The contractor will be permitted to add steam to maintain the internal concrete temperature within 20° F of the maximum temperature. Two recording thermometers showing time-temperature relationship in the concrete shall be furnished for each 200 ft. of bed. For piles, one thermometer shall be located midway between the outside corners of the pile and the nearest edge of the center void. If a void is not provided, one thermometer shall be provided at the center of gravity of the cross section.

Heading (g), Pretensioning Method, is amended by deleting the first paragraph and substituting the following:

Prestressing strands shall be accurately held in position and stressed by approved jacks. A record shall be kept of the jacking force and tendon elongation produced. Several units may be cast in a continuous line and stressed at one time. Sufficient space shall be left between ends of members to permit access for cutting strands after concrete has attained required strength. Sufficient free strand shall be left in the line to ensure that cracking of the members does not occur as the temperature of the members decreases prior to the detensioning of the strand. No bond stress shall be transferred to concrete nor shall end anchors be released until concrete has attained specified release strength as shown by cylinders made in accordance with DOTD TR 226 and cured under the same condition as the corresponding member using a TCD and tested in accordance with DOTD TR 230. Strands shall be cut or released in such order that lateral eccentricity of prestress will be a minimum in accordance with approved shop drawings. Sheathing used to debond prestress strands shall be constructed of polyethylene having sufficient rigidity to prevent bonding of the pre-stressing strand and concrete. The sheathing shall be split type sheathing having a minimum thickness of 0.03 inch (0.75mm) and shall be of sufficient width to maintain a 0.75 inch, $\pm 1/16$ inch (20 mm, ± 2 mm) overlap after being placed on the strand. The joints between segments of sheathing shall be taped to prevent leakage of concrete into the sheathing.

Section 901, Portland Cement Concrete, is amended as follows.

Subsection 901.06, Quality Control of Concrete, is amended to include the following paragraph:

A representative of the admixture manufacturer shall be present for batching start up and during initial concrete placement.

Subsection 901.06 is further amended as follows.

Heading (a), Mix Design, is amended to include the following paragraphs:

Concrete Class P(M)(HPC) shall have an average compressive strength at 56 days $\geq 6,000$ psi (41.4 MPa).

Slump ≤ 10 inches (≤ 250 mm)

Concrete mix design and slump shall be selected by contractor to ensure that concrete does not segregate.

Permeability (total charge passed) shall be $\leq 1,000$ coulombs at 56 days.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

For Class P(M)(HPC) concrete, the contractor shall make two demonstration trial batches, of at least 3 cu. yd., on separate days at the prestressed concrete pile plant to show that the pile sections can be cast with the proposed mix design. Materials used in concrete batches shall be identical to those that will be used in production. These demonstration batches shall be made sufficiently before the production piles are cast to demonstrate that design compressive strength and permeability can be achieved. Cylinders shall be made and cured under the same condition as the corresponding pile section using a thermocouple controlled device (TCD). The cylinders shall be cured and tested in the same manner as acceptance cylinders in a production mode. The design trial batch shall meet the minimum design compressive strength before mix design approval will be given. Test results for slump, air content, wet unit weight, permeability and compressive strengths at concrete ages of 1, 3, 7, 28, and 56 days shall be submitted. The verified time-temperature history of the concrete during the initial curing period shall be submitted. If requested, the contractor shall furnish materials to the Department for further verification of trial mixes. The contractor shall strictly adhere to the manufacturer's written recommendations regarding the use of admixtures, including storage, transportation and method of mixing.

Subsection 901.06 is further amended to add the following Heading.

Heading (e), Quality Acceptance and Verification Tests:

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Rapid chloride permeability tests shall be performed by the CEI or DOTD for acceptance depending on the contract. If the contract provides for CEI then as a quality assurance (QA) verification measure, LTRC will mirror the permeability testing by the CEI. The cylinders provided to LTRC for verification measures will be randomly selected by the department from the same set of cylinders provided to the CEI. This will require double the sample cylinders to be made for these occasions.

Sampling frequency for permeability testing will be as follows (based on a specified maximum permeability of 1000 coulombs):

The sampling frequency will be based upon the permeability results of the production samples. Based on historical results and statistical methods the sampling frequency may be increased up to 50%. The Headquarters Construction Section Fabrication Engineer shall approve any change in the sampling frequency.

Four¹ (4" X 8")(100mm x 200mm) permeability cylinders will be made and appropriately labeled for each line cast for structural elements:

¹(Eight (4" X 8") cylinders will be required for CEI jobs)

These four or eight permeability cylinders per structural element will constitute a group.

If the permeability is less than 500 coulombs for the trial batch testing results, then the Project Engineer shall randomly select one group of permeability cylinders for testing, at a frequency of one (1) for every 1000 linear feet (305 lin m) of pile.

If the permeability is less than 750 coulombs and greater than 500 coulombs for the trial batch testing results, then the Project Engineer shall randomly select one group of permeability cylinders for testing, at a frequency of one (1) for every 750 linear feet (229 lin m) of pile.

If the permeability is less than 1000 coulombs and greater than 750 coulombs for the trial batch testing results, then the Project Engineer shall randomly select one group of permeability cylinders for testing, at a frequency of one (1) for every 500 linear feet (152 lin m) of pile. For this category, the contractor is responsible for the cost of the increased testing frequency.

A test is defined as the average of four (4) specimens taken from four (4" X 8") (100mm x 200mm) cylinders prepared and tested for permeability in accordance with AASHTO T-277 (ASTM C1202) and cured under the same conditions as the concrete element represented for a minimum of 24 hours at the jobsite. The QA verification samples will then be transported by the CEI to LTRC for continued lab curing and storage until testing. The remaining cylinders or parts of cylinders will be appropriately labeled and kept in case of failing permeability results which will require retesting or in case of any disputes in the results. Only after passing test results with no possibility of dispute will the remaining cylinders/parts be discarded.

Acceptance permeability test results shall be below the maximum value of 1000 coulombs (56 day test). If test results exceed the allowable criteria (1000 coulombs) the product will be rejected. Further production will cease and investigation and/or testing will be required subject to review by the Fabrication Engineer prior to resumption of fabrication.

Subsection 901.07, Substitutions, is amended to include the following in Table 901-2:

Structural Class	Substitute
P(M)(HPC)	No substitutions

Subsection 901.08, Composition of Concrete, is amended as follows.

Heading (a), Cement, is amended to include the following paragraphs:

STATE PROJECT NO. 064-01-0040

SPECIAL PROVISIONS

For Class P(M)(HPC) concrete, the contractor will be permitted the use of silica fume up to a maximum of 10 percent by weight of the total combination of cement, fly ash and silica fume; and fly ash, with Type I, I(B), I(C), II or III portland cement, up to a maximum of 35 percent by weight for the total combination of cement, fly ash and silica fume.

Subsection 901.08, Composition of Concrete, is further amended to add the following Headings.

(e) Compressive Strength, Structural Concrete:

Cylinders by which strength of Class P(HPC) and Class P(X)(HPC) concrete are to be determined shall be cured under the same condition as the corresponding members using a thermocouple controlled device (TCD), until detensioning of the strand. Thereafter, cylinders shall be cured alongside the members that they represent.

(f) Permeability:

Permeability of concrete shall be determined in accordance with AASHTO T277 and ASTM C1202. The permeability samples shall have a 4-in. diameter (102 mm) and a length of at least 8 in. (203 mm). Class P(M)(HPC) concrete shall be cured under the same condition as the corresponding members using a thermocouple controlled device (TCD), until tested 56 days after casting. The average value of three specimens shall be reported.

Subsection 901.11 Temperature Limitations is amended as follows.

Heading (c), Cold Weather Limitations, is amended by deleting the last sentence of the first paragraph.

Heading (c), Cold Weather Limitations, is further amended to include the following paragraph:

Due to the strength acceleration characteristics of silica fume inherent in Class P(M)(HPC) mixes, cold weather limitations for mixes containing GGBFS (slag) and Class F fly ash are waived. Class P(M)(HPC) concrete shall adhere to the cold weather limitations for plain portland cement mixes as stated in this subsection.

Subsection 901.12, Acceptance and Payment Schedule, is amended to include the following paragraph:

In addition, Class P(M)(HPC) concrete shall not be accepted and shall be removed if the specified permeability of less than or equal to 1,000 coulombs is not achieved in 56 days.

Also, Class P(M)(HPC) concrete shall not be accepted and shall be removed if the specified compressive strength, of greater than or equal to 6,000 psi, is not achieved in 56 days.

Section 1003, Aggregates, is amended as follows.

Subsection 1003.02, Aggregates for Portland Cement Concrete and Mortar, is amended as follows.

Heading (a), Fine Aggregate, is amended to include the following paragraph:

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

For Class P(M)(HPC) concrete, other gradations of concrete sand will be permitted if demonstrated in trial mixes to produce the required concrete properties and accepted as part of the proposed mix design.

Heading (b), Coarse Aggregate, is amended to include the following paragraph:

For Class P(M)(HPC) concrete, other gradations of uncrushed and crushed concrete coarse aggregate will be permitted if demonstrated in trial mixes to produce the required concrete properties and accepted as part of the proposed design mix.

Section 1009, Reinforcing Steel and Wire Rope, is amended as follows.

Subsection 1009.05, Steel Strand for Pretensioning, is amended to include the following:

The contractor shall obtain certification from the strand supplier that the strand will bond to the concrete of normal strength and consistency in conformation with the prediction equations for transfer and development length given in the AASHTO Standard Specifications for Highway Bridges.

DOTD TESTING PROCEDURE MANUAL TR226-95/226M

For this project, DOTD designation: TR226-95/226M is amended as follows:

Part II Apparatus:

At the end of the first paragraph of A., Cylinder Molds, add the following:

Match-cylinders shall have an inside diameter of 4 inches (102 mm) and a length of 8 inches (203 mm).

Add the following new section under Apparatus:

3. Match-Cure Molds – Sure Cure Cylinder Mould System from Products Engineering.

Section IV. A. Compression Test Specimens

Add the following new section:

1. c. Match-Cure Molds – Follow manufacturer's instructions.

DOTD TESTING PROCEDURE MANUAL TR 230-95/230M

For this project, DOTD Designation: TR 230-95/230M is amended with respect to the following:

Section II.G. Testing Machines

Add the following at the end of the second paragraph:

STATE PROJECT NO. 064-01-0040

SPECIAL PROVISIONS

For testing Class P(M)(HPC) concrete, the testing machine shall have been calibrated within 6 months prior to the time of testing.

Part IV. Sample

Add the following Paragraph:

Match-cure cylinders shall be molded to have a diameter of 4 in. (102 mm) and a nominal height of 8 in. (203 mm).

Section V. B. Determining the Cross-Sectional Area

Add a new section as follows:

3. For match-cured cylinders, determine cross-sectional area in accordance with V.B.2.

Section V.D. Determining Compressive Strength

Add the following to the first paragraph:

Neoprene caps with a durometer hardness of at least 70 shall be used for testing Class P(M)(HPC) concrete.

STRUCTURAL CONCRETE: Add new Subsection 805.09(g)(1) as follows:

(1) Polymer Laminate Steel Stay-in-Place Forms: When polymer laminate steel stay-in-place forms are called for in the plans, apply polymer sheeting to the entire exterior and interior surfaces of steel stay-in-place forms. Use polymer sheeting materials and application methods as described herein.

a. Polymer Sheeting: Use polymer sheeting comprised of at least 85% ethylene acrylic acid copolymer capable of being applied to both GI65 and G210 steel sheet as described in ASTM A742. Ensure that the polymer sheeting has a nominal thickness of 12 mils (0.012 inch) as manufactured and a minimum thickness of 10 mils (0.010 inch) after lamination to the steel sheet. Ensure that the polymer sheeting remains free of holes, tears and discontinuities and sufficiently flexible to withstand the forming process without any detrimental effects to durability or performance. Ensure that the polymer sheeting is UV stabilized and contains antioxidants. Ensure that the as-manufactured polymer sheeting (prior to application) has an Oxidative Induction Time (OIT) of 60 to 75 minutes at 170 DC in air when tested according to ASTM D3895. Perform additional OIT tests on samples taken from the finished product (polymer sheeting applied to forms) resulting in a minimum OIT according to ASTM D3895 of 32 minutes at 170 DC in air. Ensure that the polymer sheeting adheres to galvanized metal sufficient to prevent undercutting at penetrations made through the polymer sheeting or metal forms to the satisfaction of the Engineer. Ensure that edges subjected to shear cutting are coated by the form manufacturer with two coats of a compatible liquid coating repair material before delivery to the site. Ensure that steel used to produce polymer laminated metal forms is appropriately cleaned and prepared per NCCA (National Coil Coating Association) standard continuous coil coating practices. Ensure that pretreatment for use

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

in conjunction with the manufacturer's polymer sheeting material is approved as compatible by the polymer sheeting manufacturer. Apply pretreatment in accordance with the polymer sheeting manufacturer's procedures. Apply polymer sheeting in accordance with the manufacturer's recommendations and procedures. Ensure that all steel has the polymer sheeting applied prior to fabrication of the stay-in-place forms and accessories. Ensure that the screws to be used in the fastening of the stay-in-place laminated metal forms have a corrosion resistant cladding that will not have an adverse effect to the system due to the contact of dissimilar metals.

b. Certification: Provide a written certification from the manufacturer stating the product meets the requirements of this specification along with the delivery of the coated forms to the job site. Ensure that the manufacturer has a quality control program conforming to ISO 9001 :2000 standards.

c. Polymer Sheeting Repairs: Inspect and identify areas for damage to the polymer sheeting and repair with liquid polymer coating similar and compatible with respect to durability, adhesion and appearance in accordance with ASTM A 762, as furnished by the stay-in-place form manufacturer. Ensure that the inspection includes checking the polymer sheeting for cuts, tears, cracking, surface pits, peeling, dirt, grease, oil, stains, rust or bare areas. Reject any panels that show coating blistering, peeling or cracking. Repair all polymer sheeting damage according to the following:

- 1. Surface Preparation:** Ensure that all surfaces to be repaired are clean and free of any harmful substances. Remove all traces of dirt, soil, oil deposits, greases, and other surface contaminants in accordance with the polymer sheeting and coating manufacturer's written specifications prior to touch-up and recoating.
- 2. Application Procedures:** Ensure that the liquid polymer repair coating is applied to a clean dry surface and in accordance with the manufacturer's written specifications. Apply the repair coating using a suitable paintbrush or other means acceptable to the Engineer. Apply a first coat of product to the surface at 2-4 mils in thickness. Let the first coat air dry. Apply a second coat to form a complete layer and increase the thickness, immediately after verifying the first coat is dry to the touch (15- 25 minutes depending on the local air drying temperature and atmospheric conditions). Apply the second coat at the same coating thickness as the first at 2-4 mils. Ensure that the total dry film thickness of the two coats is not less than 6 mils. Apply additional coats in this same manner until desired coating thickness is achieved.

CONCRETE APPROACH SLABS (06/08): Section 813 of the 2006 Standard Specifications and the supplemental specifications is amended as follows.

The third paragraph under Subsection 813.03, Embankment is deleted and the following is substituted.

STATE PROJECT NO. 064-01-0040

SPECIAL PROVISIONS

When specified, the approach slab shall be placed on a layer of bedding material in accordance with plan details. Bedding material shall be placed and compacted as directed and covered with approved polyethylene film of at least 6-mil (150 μm) nominal thickness.

ASPHALT MATERIALS AND ADDITIVES (04/08): Section 1002 of the 2006 Standard Specifications and the supplemental specifications thereto is amended as follows.

Subsection 1002.02, Asphalt Material Additives is amended as follows.

Table 1002-1, Performance Graded Asphalt Cements is deleted and the following substituted.

STATE PROJECT NO. 064-01-0040

SPECIAL PROVISIONS

Table 1002-1

Performance Graded Asphalt Cements

Property	AASHTO Test Method	PG82-22rm ⁶	PG76-22m	PG70-22m	PG64-22	PG58-28
		Spec.	Spec.	Spec.	Spec.	Spec.
Tests on Original Binder:						
Rotational Viscosity @ 135°C, Pa.s ¹	T 316	3.0	3.0	3.0	3.0	3.0
Dynamic Shear, 10 rad/s, G*/Sin Delta, kPa	T 315	1.00+ @ 82°C	1.00+ @ 76°C	1.00+ @ 70°C	1.30+ @ 64°C	1.00+ @ 58°C
Flash Point, °C	T 48	232+	232+	232+	232+	232+
Solubility, % ²	T 44	N/A	99.0+	99.0+	99.0+	99.0+
Separation of Polymer, 163°C, 48 hours, degree C difference in R & B from top to bottom ⁵	ASTM D 7173 AASHTO T 53	---	2-	2-	---	---
Force Ductility Ratio (f ₂ /f ₁ , 4°C, 5 cm/min., f ₂ @ 30 cm elongation) ³	T 300	---	0.30+	---	---	---
Force Ductility, (4°C, 5 cm/min, 30 cm elongation, kg) ³	T 300	---	---	0.23+	---	---
Tests on Rolling Thin Film Oven Residue:						
Mass loss, %	T 240	1.00-	1.00-	1.00-	1.00-	1.00-
Dynamic Shear, 10 rad/s, G*/Sin Delta, kPa	T 315	2.20+ @ 82°C	2.20+ @76°C	2.20+ @ 70°C	2.20+ @ 64°C	2.20+ @ 58°C
Elastic Recovery, 25°C, 10 cm elongation, % ⁴	T 301	60+	60+	40+	---	---
Ductility, 25°C, 5 cm/min, cm	T 51	---	---	---	100+	---
Tests on Pressure Aging Vessel Residue:						
Dynamic Shear, @ 25°C, 10 rad/s, G* Sin Delta, kPa	T 315	5000-	5000-	5000-	5000-	5000- @ 19°C
Bending Beam Creep Stiffness, S, MPa @ -12°C.	T 313	300-	300-	300-	300-	300- @ -18°C
Bending Beam Creep Slope, m value,@ -12°C	T 313	0.300+	0.300+	0.300+	0.300+	0.300+ @ -18°C

¹The rotational viscosity will be measured to determine product uniformity. The rotational viscosity measured by the supplier shall be noted on the Certificate of Delivery. A binder having a rotational viscosity of 3.0 Pa·s or less will typically have adequate mixing and pumping capabilities. Binders with rotational viscosity values higher than 3.0 Pa·s should be used with caution and only after consulting with the supplier as to any special handling procedures and guarantees of mixing and pumping capabilities.

²Not all polymers are soluble in the specified solvents. If the polymer modified asphalt digested in the solvent will not pass the filter media, a sample of the base asphalt used in making the

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

polymer modified asphalt should be tested for solubility. If the solubility of the base asphalt is at least 99.0%, the material will be considered as passing.

³AASHTO T 300 except the second peak (f₂) is defined as the stress at 30 cm elongation.

⁴AASHTO T 301 except elongation shall be 10 cm.

⁵Prepare samples per ASTM D 7173. Determine softening point of top and bottom per AASHTO T 53.

⁶The quality assurance plan for this product will require the contractors who use this material to submit written documentation of tank cleaning annually. Contractors must have tank mixers. Written certificates of analysis from the asphalt binder supplier confirming rubber source and size distribution of rubber used shall be furnished to the Materials Laboratory.

Add the following Table 1002-12, Anionic Trackless Tack Coat Grade NTSS-1HM.

Table 1002-12
Anionic Trackless Tack Coat Grade NTSS-1HM

Property	AASHTO Test Method	Specification Deviation	
		100% Pay	50% Pay or Remove ¹
Viscosity, Saybolt Furol @ 25°C, s	T 59	15 - 100	---
Storage Stability, 24 Hour, %	T 59	1.0-	---
Settlement, 5 Days, %	T 59	5.0-	---
Residue by Distillation, %	T 59	50+	49-
Oil Distillate, %	T 59	1.0-	---
Sieve Test ² , (Retained on the 850 µm), %	T 59	0.3-	---
Tests on Residue			
Penetration @ 25°C, 100g, 5s, dmm	T 49	20-	---
Softening Point, Ring and Ball, °C	T 53	65+	64-
Solubility, %	T 44	97.5+	---
DSR @ 25°C; G*Sin δ, 10 rad / s, kPa	T 315	1.0+	---

¹ At the option of Engineer.

² Sieve tests may be waived if no application problems are present in the field.

BASE COURSE AGGREGATES (07/08): Subsection 1003.03 of the 2006 Standard Specifications is amended to include the following.

(e) Blended Calcium Sulfate: When blended calcium sulfate base course material is allowed on the plans, it shall consist of calcium sulfate from a source approved by the Materials and Testing Section and be blended with an approved aggregate or lime. The source shall have a quality control program approved by the Materials and Testing Section. The source shall have been given environmental clearance by the Department of Environmental Quality for the intended use, and written evidence of such environmental clearance shall be on file at the Materials and Testing Section. DOTD monitoring for compliance with environmental regulations will be limited to the pH testing stated herein below. The blended material shall be non-plastic and reasonably free from organic and foreign matter. The pH shall be a minimum of 5.0 when tested in accordance with DOTD TR 430. Re-evaluation will be required if the source of the aggregate or lime that is blended with the calcium sulfate changes.

Blended calcium sulfate material used as base course shall comply with the following gradation requirements when tested in accordance with DOTD TR 113, modified to include a

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

maximum drying temperature of 140°F (60°C). Sampling shall be taken from an approved stockpile at the point of origin.

<u>U.S. Sieve</u>	<u>Metric Sieve</u>	<u>Percent Passing</u>
1-1/2 inch	37.5 mm	60 - 100
1 inch	25.0 mm	40 - 80
3/4 inch	19.0 mm	30 - 70
No. 4	4.75 mm	20 - 65
No. 200	75 µm	0 - 25

Blended calcium sulfate shall be sampled in accordance with the requirements for stone in Section 302 of the Materials Sampling Manual.

NS BUCKET DREDGING (04/09):

DESCRIPTION. This work consists of localized dredging required to facilitate bridge construction. This work shall be in accordance with the plans and permits and as directed by the engineer. The contractor shall become familiar with and comply with all Federal, State, and Local regulatory and reporting agencies of the permitting network.

MATERIALS. Vacant.

EQUIPMENT. The contractor shall provide and maintain the necessary equipment for proper dredging operations. The Department shall approve dredging equipment prior to dredging operations.

CONSTRUCTION REQUIREMENTS. When dredging is deemed necessary to facilitate bridge construction, the contractor shall notify the Department one week prior to commencing dredging. The engineer shall approve the proposed dredging operations within the vicinity of the bridge. When furnishing the dredging areas, the contractor shall supply the Department with evidence that the necessary permits, rights, or waivers for the use of such areas have been secured.

Dredging operations shall be done in accordance with the guidelines and terms set forth by the project permits and plans.

Disposal of dredged spoil material shall be in accordance with Section 202 and the applicable Federal, State, and Local regulatory agencies.

When placing fill on submerged land, construct dikes prior to beginning of dredging, and maintain the dikes throughout the dredging operation.

MEASUREMENT. Bucket dredging completed and accepted, will be measured for payment per cubic yard (cu m), which includes all labor, equipment, tools, and incidentals necessary to complete the work. No measurement for payment will be made for the removal of muck or overburden from the dredging areas. No payment will be made for embankment material used to replace muck or other unsuitable material excavated beyond the lines and grades shown in the plans or ordered by the engineer.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

PAYMENT. Payment for bucket dredging will be made at the contract unit price per cubic yard (cu m)

Payment will be made under:

Item No.	Pay Item	Pay Unit
NS-203-00001	Bucket Dredging	Cubic Yard

NS RESIDENT ENGINEERS' HOUSING ALLOWANCE (04/09):

DESCRIPTION. The contractor shall provide reasonable furnished housing accommodations for 6 DOTD employees. This furnished housing shall be provided for the duration of the project and shall be located within 10 miles of the project site at a location approved by the Project Engineer.

REQUIREMENTS. The housing may be a permanent dwelling such as a well maintained condominium or cabin type, or FEMA-approved new mobile manufactured housing.

As a minimum the housing shall meet all requirements of Residential Housing required by parish or city ordinances and building codes and any FEMA building requirements. Where local building codes do not govern, or are not present, the housing shall meet the requirements of the International Code Council IRC-2003 (2003 International Residential Code for One- and Two-Family Dwellings).

The following shall be provided in the housing:

1. Each employee shall have their own individual bedroom and a separate bath room.
2. Each housing unit shall have a kitchenette that shall be minimally equipped with a full size refrigerator, two-element cooking stove, microwave, and standard sink with both hot and cold water.
3. Each bathroom shall be equipped with a toilet, lavatory and shower with hot and cold water.
4. A minimum living space of 300 sq. ft. per employees shall be provided.
5. Each bedroom shall be equipped with a full size or larger bed.
6. Laundry facilities for both washing and automatic drying shall be provided at the housing location.
7. Twice-weekly cleanup service shall be provided.
8. Central air conditioning and heating shall be provided to supply air temperature control between 65 and 78 degrees Fahrenheit at all times of the year.
9. High speed internet service.
10. A television with basic cable TV service.

The contractor shall be responsible for installing all utility hook-ups and all related maintenance costs. The housing accommodations, furnishings and their location shall be approved by the Project Engineer.

MEASUREMENT. The housing accommodations, furnishings, and all related maintenance and monthly service for basic cable TV service, internet service, telephone, water, sewage, electricity and or gas will be measured on the basis of cost per month.

PAYMENT. Payment will be made under:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
NS-722-00001	Resident Engineers' Housing Allowance	Month

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

NS DEMOBILIZATION-REMOBILIZATION (04/09):

DESCRIPTION. This item consists of demobilization and remobilization for projects located in an area with high exposure to hurricanes.

MATERIALS: Vacant.

CONSTRUCTION REQUIREMENTS. The contractor will be required to demobilize, move and/or protect all equipment and material that may be damaged during a hurricane, secure the project site, protect the work, and evacuate his/her workforce whenever a mandatory evacuation is ordered by the state or local government authorities. Once the mandatory evacuation order has been lifted the contractor will be required to remobilize all equipment, material, and workforce and be prepared to resume the work upon receipt of notice by the Department.

MEASUREMENT. This item will be measured for payment per each occurrence , and will include all costs associated with demobilizing, moving and/or protecting all equipment and material that may be damaged during a hurricane, securing the project site, protecting the work, and evacuating the workforce, and remobilizing all equipment, material, and workforce after the event has passed. The Department will allow an extension of contract time for demobilization and remobilization , however no additional cost will be allowed for overhead.

PAYMENT. Payment will be made at the contract unit price per each demobilization/remobilization occurrence.

Payment will be made under:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
NS-727-00001	Demobilization-Remobilization	Each

NS DYNAMIC ANALYSIS (08/02): This item shall consist of the cost for providing CAPWAP and Wave Equation analyses by Goble, Rausche, Likins and Associates, Inc. as described herein. The CAPWAP and Wave Equation analyses shall be performed for the purpose of obtaining ultimate pile bearing capacity, pile driving stresses, pile integrity, and pile driving system efficiency.

Monitoring Schedule for Dynamic Analysis: The pile to be monitored with the Department's Pile Driving Analyzer (PDA) shall be driven initially to one foot above the plan tip elevation, or as directed by the engineer. Pile restrikes shall be performed in accordance with the time intervals specified in Subsection 804.11(e) unless shown otherwise in the plans. Permanent piles may have restrikes monitored with the PDA as determined by the engineer.

Dynamic Analysis: The contractor shall contact Goble, Rausche, Likins and Associates, Inc., 4535 Renaissance Parkway, Cleveland, OH 44128 (Tel (216) 831-6131), hereinafter referred to as the consultant, for performance of either two Case Pile Wave Analysis Program (CAPWAP) analyses or two wave equation analyses or a combination of both, for each occurrence of dynamic monitoring. The Department will furnish the necessary dynamic data obtained from the dynamic monitoring to the consultant who shall use the results from the CAPWAP data to predict the pile's static bearing capacity and resistance distribution. This information will be used to verify the Pile Driving Analyzer's Case pile capacity assumptions

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

and to determine the distribution of soil static resistance, quakes, and damping factors required for the wave equation analysis. The consultant shall use the CAPWAP results to establish the relationship between stroke, energy, and blow count in the wave equation. The consultant shall submit two copies of the results to the Department's Pavement and Geotechnical Design Group within one (1) week of receiving the data unless otherwise directed by the engineer.

Additional production piles may be monitored if deemed necessary by the engineer. The cost of additional analyses shall be at the contract unit price for dynamic analysis unless it is determined that the monitoring is necessary because of contractor error.

Payment: The cost of the dynamic analyses (CAPWAP or Wave Equation) performed by Goble, Rausche, Likins and Associates, Inc. will be paid for at the contract unit price for each occurrence of dynamic monitoring.

Payment will be made under:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
NS-800-00080	Dynamic Analysis	Each

NS-STEEL FINGER JOINTS

DESCRIPTION:

Except as modified herein, all materials, testing, and construction for finger joints shall be in accordance with the Contract Plans and shall conform to the State of Louisiana Department of Transportation and Development Standard Specifications for Roads and Bridges, 2006, the Supplemental Specifications to the State of Louisiana Department of Transportation and Development Standard Specifications for Roads and Bridges, and other Special Provisions for the project, hereinafter referred to as the "Project Specifications."

(a) General

This work consists of fabricating, furnishing and installing finger joints, including steel finger plates, elastomeric drainage troughs, structural steel bolts, shapes, studs, anchors or fixing devices, barrier armor assemblies, and all other required components of the expansion joint system required to complete the work in accordance with the details and requirements of the Contract Documents and Project Specifications.

(b) Requirements

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Finger joints and barrier sliding plate assemblies shall be fabricated, furnished, and installed in accordance with the details shown on the Contract Plans, the provisions contained in this Special Provision, and the recommendations of the manufacturer. The joint system shall accommodate the longitudinal movements shown in the Contract Plans while maintaining a smooth riding surface conforming to the profile grade of the bridge, with minimal space between fingers. In place, the joint system, when required, shall prevent the passage of water, debris, and other deleterious substances through the deck joint.

The Contractor may use the finger joint system as designed and detailed in the Contract Plans, or may elect to use an alternate design provided that the alternate design conforms to the requirements shown in the Contract Plans and is designed in accordance with the specified AASHTO LRFD Bridge Design Specification edition, including all fatigue requirements. Alternate designs shall provide all the features of the joint system as shown in the Contract Plans, and shall be designed in accordance with the project design criteria per the Contract Plans and Project Specifications. This includes removable and replaceable plates, troughs, and parts (short, manageable sections), watertight drainage troughs, pre-tensioned anchor bolts, and other elements. Steel finger plates and armor plates shall sustain all loads and impacts without damage or fatigue of the joint or structure to which it is secured.

Regardless of whether the design shown in the Contract Plans or an alternate design is chosen, the Contractor shall submit to the Engineer for review and acceptance complete shop drawings detailing the joint, trough, barrier armoring, plates, bolts, setting/installation tables and procedures, and all other elements of the work in accordance with the Project Specifications and Subsection (c) below.

Maximum and minimum joint openings and finger plate requirements shall be as shown in the Contract Plans. Fingers (teeth) shall be aligned parallel to the direction of movement and shall provide the minimum and maximum spacing required. The installed finger joint surface shall provide a smooth riding surface that conforms to the profile grade. A smooth riding surface is defined as no more than 1/4" deviation of plates and finished concrete surface from a 10'-0" straight edge placed anywhere across the joint.

The fingers of the joint shall be shaped and installed as shown in the Contract Plans to ensure that the fingers remain below the level of the riding surface at all times under all anticipated movements and rotations of the superstructure and substructure.

A formed surface shall be provided to contain the secondary pour concrete at the front edges of the opening underneath both sides of the finger joint.

When drainage troughs are required, elastomeric drainage troughs, sheets, seals or other membranes shall be fabricated and installed to collect all water, moisture, debris, and other deleterious substances from the roadway passing through the openings between fingers. Troughs, sheets, seals and membranes shall be so attached and sealed to the finger joint assembly that no leakage occurs and adjacent parts of the structure remain protected during normal operation and flushing of the joints by maintenance personnel. Details shall conform to the Contract Plans.

Drainage troughs shall be manufactured and installed in accordance with the Contract Plans such that a minimum true slope of 8% is maintained across the structure with due consideration for superelevation at the joint location. A minimum sag of 6-inches shall be

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

provided measured from the trough attachment points at the maximum joint opening at centerline of girder. Trough and sheet limits shall be as shown on the Contract Plans.

(c) Shop Drawings

Shop drawings shall be submitted in accordance with the Project Specifications and requirements herein. At least 60-days prior to manufacture, the Contractor shall provide to the Engineer for review and acceptance all necessary shop drawings and pertinent information for the finger joint system, including barrier armoring. This shall include, but not necessarily be limited to, complete shop details of the joint system, manufacturer's data sheets, engineering calculations, material specifications, results of testing, certifications, temperature setting and installation tables, and complete directions for the fabrication, delivery, handling, lifting, storing, and installation of the joint, including the barrier armoring assembly.

MATERIALS:

(a) Structural Steel and Bolts

Unless otherwise noted in the Contract Plans, all steel used in the fabrication of the finger joint system, including barrier armoring, shall be AASHTO M270 Grade 50, and shall be zinc metallized after fabrication in accordance with Section 811 of the Louisiana DOTD Standard Specifications. Surfaces shall be prepared according to Section 811.06. All bolts shall be A325 heavy hex structural bolts with heavy hex nuts and washers provided in the sizes and lengths required. Type 1 Bolts, nuts and washers shall be mechanical galvanized in accordance with Section 811.12.

(b) Reinforced Elastomeric Troughs and Sheets

Elastomeric troughs, sheets, and membranes shall be of virgin polychloroprene (neoprene) or EPDM (Ethylene Propylene Dienemonomer) with excellent environmental resistance to weather, salts, chlorides, oxygen, ozone, radiation, water, and common roadway substances such as gasoline and products of combustion. Elastomeric sheets shall be internally reinforced with synthetic or natural fabric, and shall conform to the following:

Durometer Hardness (Shore A)	50 minimum (ASTM D 2240)
Tensile Strength	1500 psi minimum (ASTM D 412)
Maximum elongation at ultimate Tensile Capacity	> 30%
Ozone resistance	No cracks when tested to ASTM D 1149 Ozone resistance procedure "B" 100 PPHM Ozone for 70 hours @ 100 degrees F under 20% strain.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Preformed troughs, seals and membranes shall be fabricated as a single piece without splices. Joints in troughs, seals or membranes shall be properly made according to manufacturer's requirements and shall not leak. All material shall be cut cleanly, with a true edge using suitable, sharp tools and methods to provide a straight and accurate installation.

(c) Concrete

Secondary concrete for filling of expansion joint blockouts and details shall be of the same class and strength as that specified for the cast-in-place bridge deck or bridge superstructure segments, unless otherwise specified on the Contract Plans or accepted shop drawings. The Contractor may propose a mix design utilizing a maximum coarse aggregate size of 3/8 inch provided the proposed mix results in the same strength, permeability and durability requirements as the cast-in-place bridge deck or superstructure segment concrete as required by the Project Specifications. Mix designs shall be submitted to the Engineer for review and approval prior to use.

CONSTRUCTION:

(a) Installation Plan

The Contractor shall submit an installation procedure for the specific expansion joint system to be provided. This plan shall be in accordance with the recommendations of the joint manufacturer, and shall include at a minimum:

- Means of delivery, handling, lifting, and storing
- Step-by-step installation procedures
- Temperature setting and Adjusting Tables
- Methods for securing the joint temporarily during adjustment
- Methods for adjusting the joint for temperature considerations
- Methods for insuring rideability
- Methods for installing and securing the joint, blockout reinforcing and post-tensioning, and for placing surrounding concrete to the lines required
- Methods for adjusting barrier shape and attaching barrier rail inserts, bolts, and sliding cover plate assemblies

(b) Storage

Expansion joint material delivered to the site shall be stored under cover on platforms above ground. It shall be protected at all times from damage and, when installed, shall be free of dirt, oil, grease or other foreign substances. Field welding is not permitted.

(c) Joint Installation

The Contractor shall exercise care during installation to avoid damage to components of the finger joint system. Any damaged plates, fingers, shapes, bolts, troughs, seals, membranes, or other elements of the work shall be removed and repaired or replaced with new components in a manner acceptable to the Engineer and at no cost to the Department.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Anchor bolts, armor plates, and fixing devices shall be accurately located and securely held to correct line and level during placement of secondary concrete to fill the blackout region. All concrete shall be placed, properly consolidated with no voids, finished, and cured to ensure proper strength and durability. The Contractor shall detail his method for aligning and securing the joint to account for thermal movements of the structure and to provide a smooth riding surface within the required tolerances.

All deck surface preparation, including grinding and/or grooving required to meet rideability specifications, shall occur before installation of the joints. Joints shall be temporary bridged to allow movement of construction personnel using suitable materials and means that prevent damage to the structure until joints can be installed. Joint installation shall not proceed without the approval by the Engineer of all material and installation methods.

All materials used to form the secondary pour of the expansion device blackout and to temporarily support the expansion device until concrete set shall be removed prior to final acceptance.

METHOD OF MEASUREMENT:

Finger joints shall be measured by the length of the completed joint between curb-lines parallel to the joint across the deck. Measurement shall include all necessary work to provide the finger joint system, including barrier armoring, in accordance with the details shown in the Contract Plans or accepted shop drawings, and as required by the Project Specifications and these Special Provisions, including but not necessarily limited to all materials, fabrication, testing, certification, transport, delivery, storage, handling, installation, adjustment, and acceptance in place by the Engineer. Secondary concrete and reinforcing in blackout and the placement of this concrete in the expansion joint blockouts shall be included in the measurement of this item.

BASIS OF PAYMENT:

Payment shall be made at the contract unit price per linear foot (linear m) of installed joint as specified above. Payment shall be made under:

Item No.	Pay Item	Pay Unit
NS-800-00160	Steel Finger Joints	Linear Foot (Linear M)

**NS-PRECAST PRESTRESSED CONCRETE GIRDERS CLASS P(HPC) CONCRETE
AND CLASS P(X)(HPC) CONCRETE
DESCRIPTION.**

This item includes the requirements for furnishing, placing, finishing and curing high performance portland cement concrete for precast prestressed concrete girder bridges. Except as amended by this special provision, high performance concrete shall conform to Sections 805, 901, 1001, 1003, 1009, 1011, and 1018 of the 2006 Louisiana Standard Specifications for Roads and Bridges as previously amended by supplemental specifications. It also amends DOTD Testing and Procedures Manuals, TR 226-95/226M and TR 230-95/230M.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

MATERIALS.

Section 805, Structural Concrete is amended as follows.

Subsection 805.02 Materials is amended to include the following in Table 805-1:

Concrete Class	Use
P(HPC)	High Performance concrete precast bridge girders
P(X)(HPC)	High Performance concrete precast bridge girders

Section 901, Portland Cement Concrete is amended as follows.

Subsection 901.02 Materials is amended to include the following:

The use of silica fume conforming to AASHTO M307, with the exception of Loss on Ignition (LOI) which shall not exceed 6.0 percent, or ASTM C 1240, will be permitted.

CONSTRUCTION REQUIREMENTS.

Section 805, Structural Concrete is further amended as follows.

Subsection 805.14, Prestressed Concrete is amended as follows:

Heading (e), Curing, is deleted and the following substituted:

To establish adequacy of curing methods and to determine whether concrete has attained the required compressive strength, a minimum of eight test cylinders shall be made and cured under the same condition as the corresponding member using a thermocouple controlled device (TCD). Three cylinders shall be tested no later than 56 calendar days after casting to determine that the required strength has been achieved. The remaining five cylinders may be tested at any time as required by the contractor. However, no more than three cylinders shall be tested in one day. If all five cylinders have been tested and concrete has not obtained required strength, the members involved shall be held at the plant until the 56-day cylinders are tested. If the average 56-day concrete cylinder strength has not achieved the required strength, all members involved will be subject to rejection. Acceptance will be made in accordance with the Department's manual entitled "Application of Quality Assurance Specifications for Precast-Prestressed Concrete Plants." Concrete elements shall be cured for a minimum duration of 72 hours at 100 percent relative humidity. If the steam curing process stops before 72 hours, continue curing the concrete element for the remaining part of the 72-hour curing period by continuous moisture curing. Hot weather concrete limitations as stipulated in Subsection 901.11(b) shall not be applicable for steam curing; however, precautions such as cooling of forms will be required.

Steam curing shall be done under a suitable enclosure to contain the steam in order to minimize moisture and heat losses. The contractor shall ensure that the enclosure is closed around the ends of the girders closest to the anchorage abutments at each end of the prestressing bed. Initial application of steam shall begin only after concrete has reached its initial set as determined by ASTM C403. When used, steam shall be at 100 percent relative humidity. Application of steam shall not be directly on concrete. During application of steam, concrete temperature shall be increased at a rate not to exceed 40° F per hour until the desired concrete temperature is achieved. The concrete temperature shall not exceed 160° F. Steam curing may

SPECIAL PROVISIONS

continue until concrete reaches release strength. At the contractor's option, the application of steam may be reduced or discontinued to ensure that the concrete temperature does not exceed 160° F. If structural defects occur, the defective members will be rejected. Contractors shall detension strands before the internal concrete temperature has decreased to 20° F less than its maximum temperature. The contractor will be permitted to add steam to maintain the internal concrete temperature within 20° F of the maximum temperature. Two recording thermometers showing time-temperature relationship in the concrete shall be furnished for each 200 ft. of bed. For girders, one thermometer shall be located at the center of gravity of the top flange and one at the center of gravity of the bottom flange.

Heading (f), Transportation and Storage, is amended by deleting the fourth and fifth paragraphs and substituting the following:

Prestressed concrete girder members shall be held at the plant for at least 14 days after casting and until the concrete has attained the specified compressive strength. Specified compressive strength shall be attained no later than 56 days after casting.

Prestressed concrete girder members may be installed 14 days after casting, provided the concrete has attained the specified compressive strength. The concrete deck shall not be cast before 28 days after casting. The minimum age of the prestressed concrete girder when the continuity is established shall be 90 days.

Heading (g), Pretensioning Method, is amended by deleting the first paragraph and substituting the following:

Prestressing strands shall be accurately held in position and stressed by approved jacks. A record shall be kept of the jacking force and tendon elongation produced. Several units may be cast in a continuous line and stressed at one time. Sufficient space shall be left between ends of members to permit access for cutting strands after concrete has attained required strength. Sufficient free strand shall be left in the line to ensure that cracking of the members does not occur as the temperature of the members decreases prior to the detensioning of the strand. No bond stress shall be transferred to concrete nor shall end anchors be released until concrete has attained specified release strength as shown by cylinders made in accordance with DOTD TR 226 and cured under the same condition as the corresponding member using a TCD and tested in accordance with DOTD TR 230. Strands shall be cut or released in such order that lateral eccentricity of prestress will be a minimum in accordance with approved shop drawings. Sheathing used to debond prestress strands shall be constructed of polyethylene having sufficient rigidity to prevent bonding of the pre-stressing strand and concrete. The sheathing shall be split type sheathing having a minimum thickness of 0.03 inch (0.75mm) and shall be of sufficient width to maintain a 0.75 inch, $\pm 1/16$ inch (20 mm, ± 2 mm) overlap after being placed on the strand. The joints between segments of sheathing shall be taped to prevent leakage of concrete into the sheathing.

Section 901, Portland Cement Concrete, is amended as follows.

Subsection 901.06, Quality Control of Concrete, is amended to include the following paragraph:

A representative of the admixture manufacturer shall be present for batching start up and during initial concrete placement.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Subsection 901.06 is further amended as follows.

Heading (a), Mix Design, is amended to include the following paragraphs:

Concrete Class P(HPC) shall have an average compressive strength at 56 days $\geq 8,500$ psi (59 MPa).

Concrete Class P(X)(HPC) shall have an average compressive strength at 56 days $\geq 10,000$ psi (69 MPa).

Slump ≤ 10 inches (≤ 250 mm)

Concrete mix design and slump shall be selected by contractor to ensure that concrete does not segregate.

Permeability (total charge passed) shall be $\leq 1,000$ coulombs at 56 days.

For Class P(HPC) or Class P(X)(HPC) concrete, the contractor shall make two demonstration trial batches, of at least 3 cu. yd., on separate days at the prestressed concrete girder plant to show that the girder sections can be cast with the proposed mix design. Materials used in concrete batches shall be identical to those that will be used in production. These demonstration batches shall be made sufficiently before the production girders are cast to demonstrate that design compressive strength and permeability can be achieved. Cylinders shall be made and match cured with the girder section. The cylinders shall be cured and tested in the same manner as acceptance cylinders in a production mode. The design trial batch shall meet the minimum design compressive strength before mix design approval will be given. Test results for slump, air content, wet unit weight, permeability and compressive strengths at concrete ages of 1, 3, 7, 28, and 56 days shall be submitted. The verified time-temperature history of the concrete during the initial curing period shall be submitted. If requested, the contractor shall furnish materials to the Department for further verification of trial mixes. The contractor shall strictly adhere to the manufacturer's written recommendations regarding the use of admixtures, including storage, transportation and method of mixing.

Subsection 901.06 is further amended to add the following Heading.

Heading (e), Quality Acceptance and Verification Tests:

STATE PROJECT NO. 064-01-0040

SPECIAL PROVISIONS

Rapid chloride permeability tests shall be performed by the CEI or DOTD for acceptance depending on the contract. If the contract provides for CEI then as a quality assurance (QA) verification measure, LTRC will mirror the permeability testing by the CEI. The cylinders provided to LTRC for verification measures will be randomly selected by the department from the same set of cylinders provided to the CEI. This will require double the sample cylinders to be made for these occasions.

Sampling frequency for permeability testing will be as follows (based on a specified maximum permeability of 1000 coulombs):

Four¹ (4" X 8")(100mm x 200mm) permeability cylinders will be made and appropriately labeled for each line cast for structural elements:

¹(Eight (4" X 8") cylinders will be required for CEI jobs)

These four or eight permeability cylinders per structural element will constitute a group.

If the permeability is less than 500 coulombs for the trial batch testing results, then the Project Engineer shall randomly select one group of permeability cylinders for testing, at a frequency of one (1) for every 1000 linear feet (305 lin m) of girder.

If the permeability is less than 750 coulombs and greater than 500 coulombs for the trial batch testing results, then the Project Engineer shall randomly select one group of permeability cylinders for testing, at a frequency of one (1) for every 750 linear feet (229 lin m) of girder.

If the permeability is less than 1000 coulombs and greater than 750 coulombs for the trial batch testing results, then the Project Engineer shall randomly select one group of permeability cylinders for testing, at a frequency of one (1) for every 500 linear feet (152 lin m) of girder. For this category, the contractor is responsible for the cost of the increased testing frequency.

Based on historical results and statistical methods the sampling frequency may be increased up to 50%. The Headquarters Construction Section Fabrication Engineer shall approve any change in the sampling frequency.

A test is defined as the average of four (4) specimens taken from four (4" X 8") (100mm x 200mm) cylinders prepared and tested for permeability in accordance with AASHTO T-277 (ASTM C1202) and cured under the same conditions as the concrete element represented for a minimum of 24 hours at the jobsite. The QA verification samples will then be transported by the CEI to LTRC for continued lab curing and storage until testing. The remaining cylinders or parts of cylinders will be appropriately labeled and kept in case of failing permeability results which will require retesting or in case of any disputes in the results. Only after passing test results with no possibility of dispute will the remaining cylinders/parts be discarded.

Acceptance permeability test results shall be below the maximum value of 1000 coulombs (56 day test). If test results exceed the allowable criteria (1000 coulombs) the product will be rejected. Further production will cease and investigation and/or testing will be required subject to review by the Fabrication Engineer prior to resumption of fabrication.

Subsection 901.07, Substitutions, is amended to include the following in Table 901-2:

Structural Class	Substitute
P(HPC)	No Substitutions
P(X)(HPC)	No Substitutions

Subsection 901.08, Composition of Concrete, is amended as follows.

Heading (a), Cement, is amended to include the following paragraphs:

STATE PROJECT NO. 064-01-0040

SPECIAL PROVISIONS

For Class P(HPC) and Class P(X)(HPC) concrete, the contractor will be permitted the use of silica fume up to a maximum of 10 percent by weight of the total combination of cement, fly ash and silica fume; and fly ash, with Type I, I(B), I(C), II or III portland cement, up to a maximum of 35 percent by weight for the total combination of cement, fly ash and silica fume.

Subsection 901.08, Composition of Concrete, is further amended to add the following Headings.

(e) Compressive Strength, Structural Concrete:

Cylinders by which strength of Class P(HPC) and Class P(X)(HPC) concrete are to be determined shall be cured under the same condition as the corresponding members using a thermocouple controlled device (TCD), until detensioning of the strand. Thereafter, cylinders shall be cured alongside the members that they represent. For girders, thermocouples for use with match-curing system shall be placed within 1 in.(25 mm) of the center of gravity of the bottom flange.

(f) Permeability:

Permeability of concrete shall be determined in accordance with AASHTO T277 and ASTM C1202. The permeability samples shall have a 4-in. diameter (102 mm) and a length of at least 8 in. (203 mm). Class P(HPC) and Class P(X)(HPC) concrete shall be cured under the same condition as the corresponding members using a thermocouple controlled device (TCD), until tested 56 days after casting. The average value of three specimens shall be reported.

Subsection 901.11 Temperature Limitations is amended as follows.

Heading (c), Cold Weather Limitations, is amended by deleting the last sentence of the first paragraph.

Heading (c), Cold Weather Limitations, is further amended to include the following paragraph:

Due to the strength acceleration characteristics of silica fume inherent in Class P(HPC) and Class P(X)(HPC) mixes, cold weather limitations for mixes containing GGBFS (slag) and Class F fly ash are waived. Both Class P(HPC) and Class P(X)(HPC) concretes shall adhere to the cold weather limitations for plain portland cement mixes as stated in this subsection.

Subsection 901.12, Acceptance and Payment Schedule, is amended to include the following paragraph:

In addition, Class P(HPC) and Class P(X)(HPC) concrete shall not be accepted and shall be removed if the specified permeability of less than or equal to 1,000 coulombs is not achieved in 56 days.

Section 1003, Aggregates, is amended as follows.

Subsection 1003.02, Aggregates for Portland Cement Concrete and Mortar, is amended as follows.

Heading (a), Fine Aggregate, is amended to include the following paragraph:

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

For Class P(HPC) and Class P(X)(HPC) concrete, other gradations of concrete sand will be permitted if demonstrated in trial mixes to produce the required concrete properties and accepted as part of the proposed mix design.

Heading (b), Coarse Aggregate, is amended to include the following paragraph:

For Class P(HPC) and Class P(X)(HPC) concrete, other gradations of uncrushed and crushed concrete coarse aggregate will be permitted if demonstrated in trial mixes to produce the required concrete properties and accepted as part of the proposed design mix.

Section 1009, Reinforcing Steel and Wire Rope, is amended as follows.

Subsection 1009.05, Steel Strand for Pretensioning, is amended to include the following:

The contractor shall obtain certification from the strand supplier that the strand will bond to the concrete of normal strength and consistency in conformation with the prediction equations for transfer and development length given in the AASHTO Standard Specifications for Highway Bridges.

DOTD TESTING PROCEDURE MANUAL TR226-95/226M

For this project, DOTD designation: TR226-95/226M is amended as follows:

Part II Apparatus:

At the end of the first paragraph of A., Cylinder Molds, add the following:

Match-cylinders shall have an inside diameter of 4 inches (102 mm) and a length of 8 inches (203 mm).

Add the following new section under Apparatus:

3. Match-Cure Molds – Sure Cure Cylinder Mould System from Products Engineering.

Section IV. A. Compression Test Specimens

Add the following new section:

1. c. Match-Cure Molds – Follow manufacturer's instructions.

DOTD TESTING PROCEDURE MANUAL TR 230-95/230M

For this project, DOTD Designation: TR 230-95/230M is amended with respect to the following:
Section II.G. Testing Machines

Add the following at the end of the second paragraph:

F

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

for testing Class P(HPC) and Class P(X)(HPC) concrete, the testing machine shall have been calibrated within 6 months prior to the time of testing.

Part IV. Sample

Add the following Paragraph:

Match-cure cylinders shall be molded to have a diameter of 4 in. (102 mm) and a nominal height of 8 in. (203 mm).

Section V. B. Determining the Cross-Sectional Area

Add a new section as follows:

3. For match-cured cylinders, determine cross-sectional area in accordance with V.B.2.

Section V.D. Determining Compressive Strength

Add the following to the first paragraph:

Neoprene caps with a durometer hardness of at least 70 shall be used for testing Class P(HPC) and P(X)(HPC) concrete.

MEASUREMENT. Quantities of high performance concrete for Classes P(HPC) and P(X)(HPC) concrete will be design quantities specified on the plans and adjustments thereto. The design quantities will be adjusted if the engineer makes changes to adjust to field conditions, if plan errors are proven, or if design changes are made. Measurement for concrete girders will be per linear foot (lin m).

PAYMENT

Payment for high performance concrete girders will be at the contract unit price per linear foot (lin m) and will include all material, labor, equipment, tools, and incidentals necessary to complete the work.

Payment will be made under:

Item No.	Pay Item	Pay Unit
NS-800-00181	Precast Prestressed Concrete Girder (Type III) Class P (HPC)	Linear Foot (Lin M)
NS-800-00184	Precast Prestressed Concrete Girder (Type BT-78) Class P(HPC)	Linear Foot (Lin M)
NS-800-00224	Precast Prestressed Concrete Girder (Type BT-78)(HPC)	Linear Foot (Lin M)

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

NS- CLASS A (HPC) CONCRETE PIERS, CLASS A(HPC) CONCRETE BENTS AND CLASS AA(HPC) CONCRETE:

DESCRIPTION.

This item provides for furnishing, placing, finishing and curing of high performance portland cement concrete. Except as modified by this special provision, high performance concrete shall conform to Sections 805, 810, 901, 1001, 1003, 1011, 1012, and 1018 of the 2006 Louisiana Standard Specifications for Roads and Bridges as previously amended by supplemental specifications. It also amends DOTD Testing and Procedures Manuals, TR226-95/226M and TR 230-95/230M.

MATERIALS.

Section 805, Structural Concrete, is amended as follows:

Subsection 805.02, Materials, is amended to include the following in Table 805-1, Classes and Uses of Concrete:

<u>Concrete Class</u>	<u>Use</u>
A(HPC)	High performance concrete cast-in-place substructure (Bent caps, pier caps, columns, and footings)
AA(HPC)	High performance concrete cast-in-place superstructure (Flat slab and pre-tensioned girder span decks, approach slabs, and barriers)

Section 901, Portland Cement Concrete, is amended as follows

Subsection 901.02, Materials, is amended to include the following paragraph:

Materials for the concrete mixes shall be from approved and consistent sources or the duration of the project. Changing material sources during construction will not be permitted without prior approval of the engineer. If the engineer approves a change in material sourcing, new mix designs shall be developed, tested, and submitted for review.

CONSTRUCTION REQUIREMENTS.

Section 805, Structural Concrete, is further amended as follows:

Subsection 805.10, Curing, is amended to include the following paragraphs:

For Class AA(HPC) concrete used in bridge superstructures the contractor shall comply with ACI 302-Guide for Concrete and Slab Construction, ACI 308-Standard Practice for Curing Concrete, and ACI 305-Hot Weather Concreting. Since silica fume will be used in all HPC structural mixes, the contractor shall finish concrete by limiting finishing operations to screeding, minimal bull floating and then tining. Given that silica fume concrete exhibits virtually no bleed water and is cohesive in consistency, an immediate texturing and curing time (10 to 15 minutes after placement) is required.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

The following curing shall be employed for the above Classes A(HPC) and AA(HPC) concrete:

For Class AA(HPC), two coats of Type 2 liquid membrane-forming curing compound shall be applied immediately after tining. Fogging shall be used above the surface of the concrete to maintain a surface wet condition until placement of the curing compound. Exposed reinforcing steel and joints shall be covered or shielded to prevent contact with the curing compound. As soon as the surface will support the burlap without deformation, apply one layer of pre-wetted burlap and then a second layer consisting of pre-wetted burlap or burlene to the textured concrete surface. The concrete shall be kept continuously wet (potable water) with a fog nozzle system or soaker hoses for ten (10) curing days as defined in Subsection 805.11 and until a concrete compressive strength of 4000 psi (27.6 MPa) is reached.

Class A(HPC) concrete shall be cured with wet burlap or burlene as defined in Subsection 805.10.

Materials, equipment, and labor necessary for continuous curing shall be supplied by the contractor.

The contractor may submit for approval other approved curing blanket systems (for A(HPC) or AA(HPC)) that meet the continuous moisture requirements of these specifications. Approval by the Headquarters' Construction Section is required.

The engineer may require placement to be made at night or during early morning hours if satisfactory surface finish cannot be achieved. Weather conditions (current and forecast) shall be within the limits of Subsection 901.11.

Subsection 805.11, Removal of Falsework and Forms, is amended to include the following in Table 805-3 in Method 1:

<u>Concrete Class</u>	<u>Compressive Strength, psi (MPa)</u>
A(HPC)	4,000 (27.6)
AA(HPC)	4,000 (27.6)

Subsection 805.13, Concrete Surface Finishes, is amended as follows.

Heading(d)(1) is amended by deleting the last paragraph and substituting the following:

Addition of water to the surface of Class AA(HPC) and Class A(HPC) concrete to assist in finishing will not be permitted.

Section 810, Bridge Railings and Barriers, is amended as follows:

Subsection 810.03, Construction, Fabrication, Erection and Painting, is amended by deleting the first sentence of the second paragraph and substituting the following:

After completing the deck pour, a minimum of 7 days shall elapse or concrete in the deck slab shall attain a minimum compressive strength of 4000 psi (27.6 MPa) before placing the reinforcing steel and forms for railings.

Section 901, Portland Cement Concrete, is amended as follows:

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Subsection 901.01, General, is amended by deleting the first paragraph and substituting the following:

This section specifies requirements for portland cement concrete, including methods and equipment for handling and storing materials, and mixing and transporting concrete to the site for each of the bridge components to be constructed.

Subsection 901.01 is further amended to include a new paragraph as follows:

In accordance with Subsection 105.19, the contractor may submit the use of self-consolidating concrete for the construction of elements containing higher ratios of reinforcement. If approved and prior to use, the contractor shall demonstrate prior successful performance and implementation on a similar completed project, and compliance with the requirements of the project specifications. Approval will be by the Headquarters' Construction Section.

Subsection 901.05, Sampling and Testing, is amended to include the following:

Testing of samples (ACI 301) shall be performed by an AASHTO Materials Reference Laboratory(AMRL) with PCC certification (reference ACI 301) or certified Department personnel and labs.

Testing of the plastic properties of the concrete including air content shall be made only after the addition of all admixtures and at the discharge end of any pumping equipment.

All concrete cylinders used for 28 day (or 56 day if more than 20 percent of cementitious material contains Class-F Fly Ash or GGBFS) compressive strength testing shall be cured in a moist room compliant with AASHTO M201.

Subsection 901.06, Quality Control of Concrete, is further amended as follows.

Heading (a), Mix Design, is deleted and the following substituted:

The contractor shall submit mathematically accurate mix designs for each class of concrete required for each element on the project as specified herein. Each mix design submittal shall include certified test data documenting results for air content, slump, yield, unit weight, and strength (f'_{cr}), where strength is defined as the specified minimum compressive strength plus the required over-design in accordance with Table 901-4 of the standard specifications. Submittals shall be made at least 60 calendar days prior to the scheduled concrete placement.

Volume of coarse aggregate per unit volume of concrete shall adhere to Table 901-1 in the standard specifications 901.06(a).

The certified test data shall also include:

1. Weight, Source and Type of Fine Aggregates (lbs. - SSD)(kg -SSD)
2. Weight, Source, Type and Size of Coarse Aggregates (lbs. - SSD)(kg-SSD)
3. Percent Absorption for Aggregates
4. Weight, Source, and Type of Cement (lbs.)(kg)

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

If blended cement is used, the mix design shall note the components of the blended cement, the proportions of those components, and the component proportionate weights

5. Weight and Source of Class-F fly ash (lbs.)(kg)
6. Weight, Source, and Grade of Ground Granulated Blast Furnace Slag (GGBFS) (lbs.)(kg)
7. Weight and Source of Silica Fume (Microsilica) (lbs.)(kg)
8. Weight of Water (lbs.)(kg)
9. Admixtures including Type, Brand Name, and Dosage
10. Concrete Temperature
11. Water/Cementitious Ratio
(Include all cementitious material on a 1 to 1 basis, including all pozzolans)
12. Tested Slump
13. Tested Air Content
14. Unit weight
15. Yield
16. Tested Strength (f_{cr}) at 28 days (or 56 days)(Moist Room Cured) and Standard Deviation
17. Strength Gain Curves (1, 3, 7, 28, and 56 day tests)
18. Specific Gravity for all Aggregates, Cements, and Mineral Admixtures
19. Resistance to Chloride Ion Penetration (Permeability)

Durability testing is required for mix design acceptance. Mix designs shall be tested for rapid chloride permeability in accordance with AASHTO T-277. Results from rapid chloride permeability testing shall be submitted and shall show conformance with the requirements of these special provisions; including the maximum allowable rapid chloride permeability value (coulombs) which shall not exceed 1000 coulombs (56 days).

The contractor shall make two independent trial batches (minimum four cubic yard (cu m) each batch) of concrete mixes meeting these specifications to assure workability. Slump and workability of concrete mix shall be adjusted with water reducing admixtures (WRA) or high range water reducing admixtures (HRWRA). Modifications to aggregate weights, excluding adjustments for specific gravity or absorption changes, by more than 3percent, or a change in material source will constitute a change to the mix design. New certified test data will be required for approval of the mix.

Mix designs shall produce concrete complying with Subsection 901.08 of the standard specifications except as noted in herein. Acceptance will be based on conformance with the requirements of the standard specifications as well as the trial batching, testing, previous successful use, and successful implementation of the mix on this project.

Since silica fume will be present, as an addition to total cementitious content, in all high performance (HPC) structural concrete mixes (optional for mass concrete mixes), the contractor's ability to use concrete mixes containing silica fume shall be successfully demonstrated by a full-scale mock-up test including handling, placing, consolidating, finishing, and curing a 25foot by 25foot (7.5 m x 7.5 m) test slab at a location adjacent to the bridge acceptable to the engineer. A permanent element of the bridge may not be used for this test. The mock-up test will be considered successful if

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

the contractor demonstrates proper handling, placing, consolidation, finishing, and curing resulting in a slab with no voids, honeycombing, cracking, or other imperfections to the satisfaction of the engineer. If the test and finished slab is not considered to be acceptable by the engineer, the contractor shall perform additional tests until deficiencies have been addressed as determined by the engineer. The contractor must have a successful mock-up test slab completed prior to beginning production of any cast-in-place concrete bridge elements utilizing silica fume. No separate payment will be made for any costs associated with completing a successful mock-up test to the satisfaction of the engineer.

The engineer may reject any mix design at any time when field quality control tests drop below specified acceptable limits. Review and acceptance of submitted mix designs does not relieve the contractor from the responsibility of producing concrete meeting the requirements of the project specifications.

Placement of unapproved concrete into any bridge element may result in rejection of that element. Rejected elements due to placement of unapproved concrete or improper methods shall be removed and replaced at no cost to the Department. If a mix design is rejected, a new mix design shall be developed in accordance with the project specifications. The Department has seven (7) calendar days to review the mix design and related test for compliance with these provisions.

After approval of a concrete mix design, no changes shall be made in the design or its constituents without re-submittal of the design (including testing) to the engineer for review and acceptance. No elements shall be constructed until the engineer has approved the revised mix design. Elements constructed prior to engineer approval will be subject to rejection and replacement at no cost to the Department.

Subsection 901.06 is further amended to add the following heading.

(d) Quality Acceptance and Verification Tests:

Rapid chloride permeability tests shall be performed by the Certified Engineer Inspector (CEI) or the department for acceptance depending on the contract. If the contract provides for CEI then as a quality assurance (QA) verification measure, LTRC will mirror the permeability testing by the CEI. The cylinders provided to LTRC for verification measures will be randomly selected by the department from the same set of cylinders provided to the CEI. This will require double the sample cylinders to be made for these occasions.

Sampling frequency for permeability testing will be as follows (based on a specified maximum permeability of 1000 coulombs):

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Four¹ (4" X 8")(100mm x 200mm) permeability cylinders will be made and appropriately labeled for each of the following cast-in-place structural elements:

¹(Eight (4" X 8") cylinders will be required for CEI jobs)

Precast Girder Spans:

Deck	1 Group
Bent Cap	1 Group
Column	1 Group (if applicable)
Footing	1 Group (if applicable)

For Flat Slab Spans:

Flat Slab	1 Group
Bent Cap	1 Group

These four or eight permeability cylinders per structural element will constitute a group.

If the permeability is less than 500 coulombs for the trial batch testing results, then the engineer shall randomly select one group of permeability cylinders from every five groups for permeability testing.

If the permeability is less than 750 coulombs and greater than 500 coulombs for the trial batch testing results, then the engineer shall randomly select one group of permeability cylinders from every four groups for permeability testing.

If the permeability is less than 1000 coulombs and greater than 750 coulombs for the trial batch testing results, then the engineer shall randomly select one group of permeability cylinders from every two groups for permeability testing. For this category, the contractor is responsible for the cost of the increased testing frequency.

The Headquarters Construction Section shall approve any change in the sampling frequency.

A test is defined as the average of four (4) specimens taken from four (4" X 8")(100mm x 200mm) permeability cylinders prepared and tested for permeability in accordance with AASHTO T-277 and cured under the same conditions as the concrete element represented for a minimum of 24 hours at the jobsite. The QA verification samples will then be transported by the CEI to LTRC for continued lab curing and storage until testing. The remaining cylinders or parts of cylinders will be appropriately labeled and kept in case of failing permeability results which will require retesting or in case of any disputes in the results. Only after obtaining passing test results with no possibility of dispute will the remaining cylinders/parts be discarded.

Acceptance permeability test results shall be below the maximum value of 1000 coulombs (56 day test). If test results increase beyond this criterion (1000 coulombs) and after verified retesting, then all concrete operations for the affected element or span will cease and further investigation and/or testing will be required subject to review by the engineer. The engineer and the Department will decide on any corrective action to be taken by the contractor. Acceptance and Payment schedule for High Performance Concrete Permeability Test Results is included in Table 901-5 of Section 901.12 in this provision.

Subsection 901.07, Substitutions, is amended to include the following in Table 901-2, Portland Cement Concrete Mixture Substitutions:

Structural Class	Substitute
A(HPC)	No Substitutions
AA(HPC)	No Substitutions

Subsection 901.08, Composition of Concrete, is amended as follows.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Table 901-3, Master Proportion Table for Portland Cement Concrete is amended to include the following:

	Average Compressive Strength, psi ¹⁶ at 28 days	Grade of Course Aggregate	Min. Cement lb/yd ³ of Concrete ^{9,14}	Maximum Water/Cement ratio, lb/lb ^{1,9}	Total Air Content (Percent by volume) ⁴	Slump Range ¹⁰ , inches		
						Non- Vibrated	Vibrated	Slip Form Paving ²
Structural Class ¹¹								
AA(HPC)	4400	A,B,P ⁸	600	0.40	3 - 6	N.A.	2-4 ¹⁵	N.A.
A(HPC) ¹⁷ (Footings only)	4400	See Table 1003-1B	400	0.50 ¹⁷	3 - 6	N.A.	2-4 ¹⁵	N.A.
A(HPC) (All others)	4400	A,B, P ⁸	550	0.40	3 - 6	N.A.	2-4 ¹⁵	N.A.

¹⁵ For mixes containing a water-reducing admixture, the slump shall not exceed 8.5" (213 mm).

¹⁵ For mixes containing a water-reducing admixture, the slump shall not exceed 8.5" (213 mm).

¹⁶ Or at 56 days according to the project specifications.

¹⁷ Substitution of GGBFS(slag) will be allowed up to 70%.

Subsection 901.08, Composition of Concrete, is further amended as follows.

Heading (a), Cement, is amended to include the following paragraphs:

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

As a minimum (for environmental exposure), high performance concrete mixes shall contain Type II portland cement conforming to the requirements of the project specifications.

For high performance concrete placements having a least dimension of 48 inches (1200 mm) or greater, or if designated on the plans or the project specifications as being mass concrete the cement, or combination of cement and fly ash or GGBFS (slag), shall be certified to generate a heat of hydration of not more than 70 calories/gram (290 kJ/kg) at 7 days.

The high performance concrete mixes specified herein shall be considered structural concrete. The contractor will be allowed to make partial substitution on a pound (kilogram) for pound (kilogram) basis of fly ash (Class F) or GGBFS (slag) for portland cement in concrete mixes when using Type II portland cement. The contractor may substitute either fly ash (Class F) at a rate of 20 percent minimum up to 30 percent maximum by weight (mass) of cement or GGBFS conforming to Subsection 1018.27 at a rate of 30 percent minimum up to 50 percent maximum by weight (mass) of cement for structural concrete. Only Class F fly ash or Grade 100 or 120 GGBFS will be permitted.

In addition to fly ash or GGBFS, cement used for all AA(HPC) and A(HPC) structural concrete will include a minimum addition of 5 percent silica fume on a pound (kilogram) for pound (kilogram) basis up to a maximum of 10 percent by weight (mass) of cement. For all mass concrete in footings silica fume is not required but is allowed up to a maximum of 10 percent by weight (mass) of cement. Permeability requirements are not waived for these mass concrete structural elements.

Heading (b), Chemical Admixtures, is amended to include the following:

Air-entraining will be required in all high performance concrete classes for this project.

Accelerating admixtures will **not** be permitted in all high performance concrete classes for mass concrete placements.

Heading (d) (1), Coarse Aggregate, is deleted and the following substituted:

Crushed coarse aggregate shall comply with the requirements of Subsection 1003.02(b) and the permissible grades specified in Table 901-3 as amended herein.

Subsection 901.08 is further amended to add the following heading.

(e) Permeability:

High performance concrete (HPC) mix designs shall be tested for rapid chloride permeability in accordance with AASHTO T-277. The average of four specimens shall be used, and the rapid chloride permeability shall not exceed 1000 coulombs for all HPC concrete mixes.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Subsection 901.11, Temperature Limitations, is amended as follows.

Heading (b) (1), Bridge Decks, Approach Slabs, and Mass Concrete, is amended by deleting the second sentence and substituting the following:

When internal temperature of plastic concrete reaches 80° F (26° C), the contractor shall prevent the temperature of succeeding batches from going beyond 80° F (26° C) by approved methods.

Heading (c), Cold Weather Limitations, is amended to include the following paragraph:

Due to the strength acceleration characteristics of silica fume inherent in A(HPC) and AA(HPC) mixes, cold weather limitations for mixes containing GGBFS (slag) and Class F fly ash are waived. Both A(HPC) and AA(HPC) concretes shall adhere to the cold weather limitations for plain portland cement mixes as stated in this subsection.

Subsection 901.11 is further amended to add the following heading.

(d), Mass Concrete Placement:

It is the contractor's responsibility to produce a structure free from cracks that would result from heat of hydration during curing of mass concrete placements as defined in Subsection 901.08. These mass concrete placements shall be achieved using a continuous placement to eliminate the possibility of a cold joint.

The contractor shall provide his proposals for the mass concrete mix design, analysis, monitoring and control, including insulation and methods to the engineer for approval a minimum of 45 days prior to the placement of any mass concrete.

1. Mix Design:

The cement, or combination of cement and fly ash or GGBFS (slag), shall be certified to generate a heat of hydration of not more than 70 calories/gram³ (290 kJ/kg) at 7 days. Other precautions for reducing the heat of hydration may be taken, such as the addition of controlled quantities of ice in lieu of equal quantities of mixing water. However, the mix shall contain no frozen pieces of ice after blending and mixing components.

2. Analysis and Monitoring:

The contractor's plan shall provide an analysis of the anticipated thermal developments within the mass concrete elements for the anticipated project temperature ranges, along with the proposed mix design, casting procedures and materials. A copy of any software models (such as the Schmidt model) with the site and element specific data shall be transmitted to the engineer for approval with the analysis. This submittal shall include electronic files. Additionally, the proposed plan shall describe the measures and procedures intended to maintain, monitor and control the temperature differential between the interior and exterior of the mass concrete elements, with a maximum temperature of 150 °F (65 °C), during curing. During curing, the maximum differential temperatures shall not exceed 40° F (22° C).

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

3. Monitoring Devices:

The contractor shall provide temperature-monitoring devices to record temperature development between the interior and the exterior of the element at points approved by the engineer. A minimum of two independent sets of interior and exterior points shall be monitored for each element to provide redundancy in case of failure of a device. The monitoring points shall be located at the geometric center of the element for the interior point and two inches from the surface along the shortest line from the geometric center to the nearest surface of the element for the exterior point.

Monitoring devices shall be automatic sensing and recording instruments that record information at a maximum interval of one hour. These devices shall operate for a maximum range of 0 to 180 °F (-18 to 82 °C) with an accuracy of ± 2 °F (± 1 °C). In addition, the contractor shall take readings and record data at intervals not greater than 6 hours to ensure that the automatic devices are working properly and that the temperatures are within allowable limits. The intervals of one and six hours shall begin immediately after casting is complete and shall continue until the maximum temperature differential is reached and begins to drop. These readings shall be transmitted to the engineer daily.

Prior to the first placement of mass concrete, the contractor shall perform a test of the automatic and manual thermal sensing and recording equipment on an unrelated placement.

4. Construction:

The Contractor shall take measures to control differential and absolute temperatures by appropriate use of insulated forms and curing blankets.

If during the first 48 hours after the concrete placement, the internal concrete temperature differential nears 40 °F (22 °C), corrective measures shall be taken by the contractor to immediately retard further growth in the temperature differential such that the differential ultimately remains within the 40 °F (22 °C) limit. Furthermore, the contractor shall make revisions to the approved plan to maintain the required limits on differential temperature on any remaining placements of mass concrete. The contractor shall obtain the engineer's approval of revisions to the approved plan prior to implementation.

The contractor's attention is drawn to the fact that strength gain and cooling of the mass concrete placements can take a long time. He shall take all such time and strength considerations into account when planning his construction activities.

Section 1001, Hydraulic Cement, is amended as follows:

Subsection 1001.02, Portland-Pozzolan Cement is amended as follows. The second sentence of the second paragraph is deleted and the following substituted:

Fly ash shall comply with AASHTO M 295, Class F, except that loss on ignition shall not exceed 6 percent by weight (mass). Class C fly ash will not be permitted.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Section 1003, Aggregates, is amended as follows:

Subsection 1003.02, Aggregates for Portland Cement Concrete and Mortar, is amended to add the following heading.

(d) Aggregates for Structural Class A(HPC) Mass Concrete:

For the combined aggregates for the proposed mass concrete mix design to be used for mass concrete elements, the percent retained based on the dry weight (mass) of the total aggregates shall meet the requirements of Table 1003-1B. Additionally, the sum of the percents retained on any two adjacent sieves so designated in the table shall be at least 12 percent of the total combined aggregates. The maximum amounts by weight (mass) of deleterious materials for the total aggregate shall be the same as shown in Subsection 1003.02(b)

Table 1003-1B
Aggregates for Structural Class A(HPC)
Mass Concrete Elements

U.S. Sieve	Metric Sieve	Percent Retained of Total Combined Aggregates
2 ½ inch	63 mm	0
2 inch	50 mm	0-20
1 ½ inch	37.5 mm	0-20
1 inch	25.0 mm	5-20
¾ inch	19.0 mm	5-20
½ inch	12.5 mm	5-20
3/8 inch	9.5 mm	5-20
No. 4	4.75 mm	5-20
No. 8	2.36 mm	5-20
No. 16	1.18 mm	5-20
No. 30	600 µm	5-20
No. 50	300 µm	0-20
No. 100	150 µm	0-20
No. 200	75 µm	0-5
Note: For the sieves in the shaded areas, the sum of any two adjacent sieves shall be a minimum of 12 percent of the total combined aggregates.		

**STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS**

Section 1012, Bridge Railings and Barriers, is amended as follows:

Subsection 1012.01, Concrete, is deleted and the following substituted:

Concrete for bridge railings and barriers Class AA(HPC) as specified in the contract plans, complying with Section 901 and the requirements of this special provision.

Section 1018, Miscellaneous Materials, is amended as follows:

Subsection 1018.15, Fly Ash, is deleted and the following substituted:

Fly ash shall be from an approved source listed in QPL 50 and shall comply with AASHTO M 295 for Class F only. Class C fly ash will not be permitted.

DOTD TESTING PROCEDURE MANUAL TR 226-95/TR 226M:

DOTD TR 226-95/TR 226M is amended as follows:

Part II Apparatus:

At the end of the first paragraph of A. Cylinder Molds, add the following:

Cylinder molds for permeability testing shall have an inside diameter of 4 inches (102 mm) and a length of 8 inches (203 mm).

DOTD TESTING PROCEDURE MANUAL TR 230-95/TR 230M

DOTD TR 230-95/TR 230M is amended as follows:

Section V.D. Determining Compressive Strength

Add the following to the first paragraph:

Neoprene caps with a durometer hardness of at least 70 shall be used for testing all (HPC) concrete.

MEASUREMENT:

Quantities of high performance concrete for Classes A(HPC) and AA(HPC) concrete will be design quantities as specified on the plans and adjustments thereto. The design quantities will be adjusted if the engineer makes changes to adjust to field conditions, if plan errors are proven, or if design changes are made.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

PAYMENT.

Subsection 805.18, Payment, is amended as follows.

Heading (a), Structural Concrete, is amended to include the following after the first sentence of the second paragraph:

Class A(HPC) and AA(HPC) concrete will be accepted on a lot basis.

Heading (a), Structural Concrete, is further amended to replace the second sentence of the third paragraph with the following:

The six cylinders per lot for Class A(HPC) and Class AA(HPC) concrete will be tested for compressive strength in 28 days, or 56 days in accordance with the project specifications.

Subsection 805.18, Payment, is further amended to include the following paragraph:

No separate payment will be made for the materials, labor, equipment, tools, and incidental items associated with controlling the heat of hydration for mass concrete. The cost of this work will be included in payment for the elements being constructed.

Subsection 901.12, Acceptance and Payment Schedule, is amended to include following paragraphs:

References to concrete Classes A(M) and AA(M) in Table 901-5 and all associated footnotes shall apply to concrete classes A(HPC) and AA(HPC), respectively.

Acceptance and payment schedules in Tables 901-5 and 901-7(see below) will apply to all cast-in-place high performance structural concrete. The payment schedule for cast-in-place high performance structural concrete will be the lowest value of the percents of contract prices from Tables 901-5 and 901-7(see below). Acceptance and payment schedules in Table 901-7 will apply to precast high performance structural concrete. The acceptance and payment schedules in Table 901-5 do not apply to precast concrete.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Subsection 901.12 is further amended to include Table 901-7, Acceptance and Payment Schedules for High Performance Concrete Permeability Test (56 Day Test) Results.

Table 901-7
Acceptance and Payment Schedules
High Performance Concrete Permeability Test (56 Day Test) Results
Class A(HPC) and Class AA(HPC)

Permeability Test Results (Coulombs)	Percent of Contract Price (%)
1000 & below	100
1001 - 1500	98
1501 - 2000	90
2001 & above	50 or Remove and Replace

In addition to the above any concrete not meeting permeability requirements for 100% pay may be subject to remediation. Required remediation will not change or modify any pay penalty.

Payment for high performance concrete will be at the contract unit price per cubic yard (cu m), which will include all material, labor, equipment, tools and incidentals necessary to complete the work.

Payment will be made under:

Item No.	Pay Item	Pay Unit
NS-800-00202	Class A(HPC) Concrete(Piers)	Cubic Yard (Cu m)
NS-808-00203	Class A(HPC) Concrete (Bents)	Cubic Yard (Cu m)
NS-800-00204	Class AA(HPC) Concrete	Cubic Yard (Cu m)

NS BEARING PADS (ELASTOMERIC) (05/09):

DESCRIPTION. This item consists of furnishing and installing elastomeric bearing pads and all other associated materials and equipment required to complete the work as shown on the plans and in accordance with the 2006 Louisiana Standard Specifications for Roads and Bridges.

MATERIALS. Elastomeric bearing pads shall conform to the requirements of Subsections 805.12, 807.46 and 1018.14.

CONSTRUCTION REQUIREMENTS. The contractor shall set the elastomeric bearing pads directly on the concrete masonry. Bearings shall be level, in exact position, and shall have full and even bearing on the concrete masonry. The bearing areas of the masonry, upon which the elastomeric bearing pads are to rest, shall be carefully finished to a smooth level surface of the required elevation.

MEASUREMENT. This item will be measured for payment per each, and will include all materials, labor, equipment, tools, and incidentals necessary to complete the work.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

PAYMENT. Payment for elastomeric bearing pads will be made at the contract unit price per each.

Payment will be made under:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
NS-800-00241	Bearing (Elastomeric) (Slab Span)	Each
NS-800-00244	Bearing (Elastomeric) (Type III Girder)	Each
NS-800-00248	Bearing (Elastomeric) (Type BT-78 Girder)	Each

NS HAND RAILING

DESCRIPTION. This work consists of furnishing and installing hand railing in accordance with the plans. It shall include all labor, materials, and equipment necessary to complete the work.

MATERIALS. All materials for hand railing shall comply with sections 805, 806, 807, 810, and 811 of the Standard Specifications as applicable, except as noted in the plans.

CONSTRUCTION REQUIREMENTS. Hand railing fabrication, inspection, and installation shall be done in accordance with the plans, specifications, and as directed by the engineer.

MEASUREMENT. Hand railing will be measured in linear feet of railing.

PAYMENT. Payment for this item will be made at the unit bid price per linear foot under:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
NS-800-00260	Hand Railing	Linear Foot (Ln m)

NS-INSTRUMENTATION INSTALLATION FOR INTEGRAL BRIDGE ABUTMENT:

This item consist of furnishing all equipment, materials, labor, and incidental work necessary to complete the Instrumentation Installation for Integral Bridge Abutment in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer.

Payment will be made as follows:

Item no.	Pay Item	Pay Unit
NS-800-00300	Instrumentation Installation for Integral Bridge Abutment	Lump Sum

NS-PILE DYNAMIC MONITORING INSTRUMENTATION:

DESCRIPTION: This item consists of furnishing pile dynamic monitoring instrumentation and accessories to be used by the contractor during all pile driving operations. The work will be in accordance with the plans, the 2006 Louisiana Standard Specifications for Roads and Bridges, and as directed.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

MATERIALS: All materials shall be in accordance with section 804—of the standard specifications. The pile dynamic monitoring instrumentation shall include the following:

Description
Strain Transducers
PE Accelerometers
25m Main Cables
PE Connection Cables
Destination Shipping Charges

CONSTRUCTION REQUIREMENTS: The contractor shall contact, Pile Dynamics, Inc., 4535 Renaissance Parkway, Cleveland, Ohio 44128 (Telephone No. (216) 831-6131) for purchasing the dynamic monitoring instrumentation. This equipment will be delivered undamaged to the Louisiana Department of Transportation and Development, Pavement and Geotechnical Design Section, 1201 Capitol Access Road, Room 500 B, Baton Rouge, Louisiana, 70804. The new pile dynamic monitoring instrumentation will become the property of the Department upon completion of all pile driving monitoring on this project. Warranty information, manuals, documentation, and invoice copies shall be furnished to the Louisiana Department of Transportation and Development Pavement and Geotechnical Section upon delivery of equipment. All warranties shall be registered in the name of the Department.

The contractor shall place an order for this equipment within 10 days following receipt of the Conditional Notice to Proceed. The contractor should allow 8 weeks delivery time for the new dynamic monitoring instrumentation items. All new equipment shall be purchased and scheduled for delivery by the contractor in accordance with an agreement made between the Department and Pile Dynamics, Inc.

MEASUREMENT: Pile Dynamic Monitoring Instrumentation shall be measured as a lump sum, which includes all materials, equipment, tools and incidentals, necessary to complete this item. Quantities of materials and equipment will be shown on the plans.

PAYMENT: Payment for pile dynamic monitoring instrumentation will be made at the contract lump sum price.

Payment will be made under:

Item No.	Pay Item	Pay Unit
NS-800-00540	Pile Dynamic Monitoring Instrumentation	Lump Sum

NS DEFORMED REINFORCING STEEL (STAINLESS STEEL) (04/09):

DESCRIPTION. This item consists of furnishing, handling, fabricating and placing stainless steel deformed reinforcing steel.

MATERIALS. Deformed reinforcing steel for this item shall be as follows:

Corrosion Resistant steel shall conform to ASTM A 1035 / A 1035M. Material yield strength shall be 60,000 psi minimum.

Galvanized steel shall conform to ASTM A 767 / A 767M. Material yield strength shall be 60,000 psi.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Stainless steel shall conform to ASTM A 955 / A 955M and shall be Type 316LN UNS Designation S31653, UNS Designation S31803, or UNS Designation S32304. Material yield strength shall be 60,000 psi.

Accessories such as tie wires and metal bar supports used in the fabrication, storage and placement of the corrosion resisting deformed reinforcing steel shall not adversely affect the corrosion resistance of, nor cause corrosion of, the corrosion resisting deformed reinforcing steel.

CONSTRUCTION REQUIREMENTS. This item shall be installed in accordance with the plans, Section 806 of the 2006 Standard Specifications, and as directed.

MEASUREMENT. This item, completed and accepted, will be measured for payment per pound (kg), and will include all materials, labor, equipment and tools necessary to complete the work.

PAYMENT. Payment for Deformed Reinforcing Steel will be made at the contract unit price under:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
NS-800-00560	Deformed Reinforcing Steel (Stainless Steel)	Pound (kg)

NS SPECIAL SURFACE FINISH FOR CONCRETE (04/09):

DESCRIPTION. This work consists of finishing concrete surfaces with Class 2A, Special Surface Finish, in accordance with Subsection 805.13 of the 2006 Louisiana Standard Specifications for Roads and Bridges.

MATERIALS. Materials shall comply with Section 805 of the standard specifications.

CONSTRUCTION REQUIREMENTS. Class 2A Special Surface Finish for Concrete shall be in accordance with Subsection 805.13(b) and the following:

(Class 2A Special Surface Finish shall also be applied to all visually exposed substructures faces from ground level, normal water elevation, and adjacent public facilities including caps, piles, columns, sub-shafts, footings, as described on the plans. Limits of substructure finished shall be to 1 foot (300 mm) below finish ground line, the Daily Mean Low Water elevation, or the Normal Pool elevation shown on the plans unless adjusted by the engineer..

MEASUREMENT. Special surface finish for concrete will be measured per square foot (sq m), which includes all labor, materials, and equipment necessary to complete the work.

PAYMENT. Payment will be made under:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
NS-805-00006	Special Surface Finish for Concrete	Square Foot (Sq m)

NS NAVIGATIONAL CLEARANCE GAUGE (PAINTED) (04/09):

DESCRIPTION. This work consists of painting a clearance gauge on a bridge in accordance with the plans, the 2006 Louisiana Standard Specifications for Roads and Bridges, and as directed by the engineer.

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

MATERIALS. Paint shall be high-build chlorinated rubber paint suitable for concrete. The paint shall have good exterior quality and be resistant to excessive chalking or bleeding.

CONSTRUCTION REQUIREMENTS. The requirements are in accordance with Part 118 of Title 33, CFR. The white background and the black specified foot marks and numerals shall be neatly painted with one or more coats suitable for concrete to the satisfaction of the engineer. The paint shall have a minimum 30 percent solids volume. Surface preparation methods for the concrete and application methods shall be in accordance with the manufacturer's recommendations.

MEASUREMENT. The Navigational Clearance Gauge (Painted) will be measured per each gauge painted.

BASIS OF PAYMENT. Payment for Navigational Clearance Gauge (Painted) will be at the contract price per each.

Payment will be made under:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
NS-811-00004	Navigational Clearance Gauge (Painted)	Each

NS-ITS-06120 Pull Box, Structure Mount, Furnish & Install - New

General Requirements

This specification section details the structure mounted pull box and appurtenances that are required to be purchased and installed by the Contractor. This specification section includes all structure mounted pull boxes to be installed on the span.

Structure mounted pull box / junction box shall be as detailed in the plans and specified herein.

Shop drawings detailing the structure mounted pull box / junction box and appurtenances shall be submitted to the Project Engineer for approval.

Materials

Structure mounted pull box/junction box shall have the following features:

- Rated NEMA 4X
- Constructed of 316 stainless steel including all hardware
- Sized at 24" x 24" x 12"
- One tamper proof single point lock
- One door support at each end
- Door supports shall be gas springs
- Exterior finish shall be ASA61 Gray, smooth
- Installation according to plan details
- Secured to the underside of slab spans according to plan details

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Structure mounted pull box/junction box shall be installed as located and detailed on the plans.
Conduit penetrations shall be drilled in the field.

Conduit penetrations of structure mounted pull box shall be watertight through approved hubs

PAYMENT. Payment will be made under:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
NS-ITS-06120	Pullbox, Structure Mount, Furnish & Install - New	Each

ITEM NS-P26-01000, AIR RELEASE VALVE (1") (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-01000	Air Release Valve (1") (Jefferson Parish)	Each

ITEM NS-P26-03000, CONCRETE PIPE SUPPORT BLISTER, (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-03000	Concrete Pipe Support Blister (Jefferson Parish)	Per Each

ITEM NS-P26-05000, EXPANSION / CONTRACTION COUPLING (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-05000	Expansion/Contraction Coupling (Jefferson Parish)	Per Each

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

ITEM NS-P26-06000, FIRE HYDRANTS(JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-06000	Fire Hydrants (Jefferson Parish)	Per Each

ITEM NS-P26-06020, FITTINGS FOR WATERLINE (DI) (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-06020	Fittings for Waterline (DI) (Jefferson Parish)	Per Pound

ITEM NS-P26-07000, GATE VALVE AND VALVE BOX (8") (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-07000	Gate Valve and Valve Box (8") (Jefferson Parish)	Per Each

ITEM NS-P26-07020, GATE VALVE AND VALVE BOX (12"), (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Item Unit
NS-P26-0702	Gate Valve and Valve Box (12") (Jefferson Parish)	Per Each

ITEM NS-P26-12000, LONG BODY TRANSITIONAL COUPLING (4") (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details,

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Item Unit
NS-P26-12000	Long Body Transitional Coupling (4") (Jefferson Parish)	Per Each

ITEM NS-P26-12020, LONG BODY TRANSITIONAL COUPLING (6") (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-12020	Body Transitional Coupling (6") (Jefferson Parish)	Per Each

ITEM NS-P26-12040, LONG BODY TRANSITIONAL COUPLING (8") (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-12040	Body Transitional Coupling (8") (Jefferson Parish)	Per Each

ITEM NS-P26-15000, OFFSET PIPE CLAMP ASSEMBLY, (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-15000	Offset Pipe Clamp Assembly, (Jefferson Parish)	Per Each

ITEM NS-P26-18000, REMOVAL AND DISPOSAL OF EXISTING AC WATERLINE, (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-18000	Removal and Disposal of Existing AC Waterline (Jefferson Parish)	Per Linear Foot

ITEM NS-P26-18020, REMOVAL AND DISPOSAL OF EXISTING DI WATERLINE (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-18020	Removal and Disposal of Existing DI Waterline (Jefferson Parish)	Per Linear Foot

ITEM NS-P26-23000, WATER SERVICE CONNECTIONS, (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-23000	Water Service Connections (Jefferson Parish)	Per Each

ITEM NS-P26-23020, WATERLINE (12" DI) (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-23020,	Waterline (12" DI) (Jefferson Parish)	Per Linear Foot

ITEM NS-P26-23040, WATERLINE (12" DI) RESTRAINED (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

project engineer. Measurement and payment for this item will be detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-23040	Waterline (12" DI) Restrained (Jefferson Parish)	per Linear Foot

ITEM NS-P26-23060, WATERLINE (8" PVC) (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-23060,	Waterline (8" PVC),(Jefferson Parish)	Per Linear Foot

ITEM NS-P26-23080, WATERLINE (12" PVC) (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-23080	Waterline (12" PVC) (Jefferson Parish)	per Linear Foot

ITEM NS-P26-23100, WATERLINE (4" PVC) RESTRAINED (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-23100	Waterline (4" PVC) Restrained (Jefferson Parish)	Per Linear Foot

ITEM NS-P26-23120, WATERLINE (6" PVC) RESTRAINED (JEFFERSON PARISH): This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

STATE PROJECT NO. 064-01-0040
SPECIAL PROVISIONS

Item No.	Pay Item	Pay Unit
NS-P26-23120	Waterline (6" PVC) Restrained (Jefferson Parish)	Per Linear Foot

ITEM NS-P26-23140, WATERLINE (8" PVC) RESTRAINED (JEFFERSON PARISH):

This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-23140	Waterline (8" PVC) Restrained, (Jefferson Parish)	Per Linear Foot

ITEM NS-P26-23140, WATERLINE (8" PVC) RESTRAINED (JEFFERSON PARISH):

This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-23140	Waterline (8" PVC) Restrained (Jefferson Parish)	Per Linear Foot

ITEM NS-P26-23160, WATERLINE (12" PVC) RESTRAINED (JEFFERSON PARISH):

This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the Jefferson Parish Waterline item in accordance with plan details, standard specifications and Technical Specifications contained elsewhere herein and as directed by the project engineer. Measurement and payment for this item will be as detailed in the same specifications.

Payment will be made as follows:

Item No.	Pay Item	Pay Unit
NS-P26-23140	Waterline (12" PVC) Restrained (Jefferson Parish)	Per Linear Foot

COOPERATION WITH UTILITIES (07/07): Subsection 105.06 of the Standard Specifications is amended to include the following.

Utility facilities will be removed, relocated, adjusted or abandoned in accordance with agreements between the Department and utility owners listed below. Starting dates for such work will be determined by the engineer and may be different for each utility and may not be underway concurrently with the contractor's work or with other utility relocations. Utility relocations can be within the construction limits covered by this contract. The furnishing of the

STATE PROJECT NO. 064-01-0040**SPECIAL PROVISIONS**

following estimated completion times for utility work is for information purposes only and will not relieve the contractor of any requirements of this subsection nor will it preclude the granting

of contract time credits in accordance with the provisions of this subsection. A utility company calendar day shall be the same as defined in Subsection 101.03 of the standard specifications.

UTILITY OWNER	Estimated Calendar Days After Right-Of- Way Is Clear
Lafourche Telephone Company, LLC Post Office Box 188 LaRose, LA 70373	60
Jefferson Parish Public Works 1221 Elmwood Park Blvd. Suite 802 Harahan, LA 70123	Work to be performed by successful bidder
Entergy/ LP&L P.O. Box 6036 2121 Tunnel Blvd. Houma, LA 70361	7
Town of Grand Isle P.O. Box 200 Grand Isle, LA 70358	180

CONTRACT TIME: The entire contract shall be completed in all details and ready for final acceptance in accordance with Subsection 105.17(b) within the time specified by the contractor, which shall not exceed the maximum allowable contract time stated on the "Contract Time" form contained elsewhere herein.

Prior to assessment of contract time, the contractor will be allowed 60 calendar days from the date stipulated in the Notice to Proceed to commence with portions of the contract work including but not limited to assembly periods, preparatory work for materials fabrications such as test piles, or other activities which hinder progress in the beginning stages of construction. Prior to issuance of the Notice to Proceed, the Department will consider extending the assembly period, upon written request from the contractor justifying the need for additional time.

The contractor shall be responsible for maintenance of traffic from the beginning of the assembly period. During the assembly period, the contractor will be allowed to do patching and other maintenance work necessary to maintain the roadway with no time charges when approved by the engineer.

If the contractor begins regular construction operations prior to expiration of the assembly period, the assessment of contract time will commence at the time construction operations are begun.

The contractor is directed to the special provisions and the plans for any restrictions that may affect work schedules.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS
(FOR 2006 STANDARD SPECIFICATIONS)

TABLE OF CONTENTS

PART I – GENERAL PROVISIONS

SECTION 101 – GENERAL INFORMATION, DEFINITIONS, AND TERMS

Subsection 101.03 – Definitions.....1

SECTION 102 – BIDDING REQUIREMENTS

Subsection 102.09 – Proposal / Bid Guaranty1

SECTION 107 – LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

Subsection 107.05 – Federal Aid Participation.....2

SECTION 108 – PROSECUTION AND PROGRESS

Subsection 108.04 – Prosecution of Work.....2

PART II – EARTHWORK

SECTION 202 – REMOVING OR RELOCATING

STRUCTURES AND OBSTRUCTIONS

Subsection 202.06 – Plugging or Relocating Existing Water Wells2

PART III – BASE COURSES

SECTION 302 – CLASS II BASE COURSE

Subsection 302.01 – Description2

Subsection 302.02 – Materials.....2

Subsection 302.04 – General Construction Requirements2

Subsection 302.05 – Mixing3

Subsection 302.06 – Transporting and Placing on Subgrade3

Subsection 302.07 – Compacting and Finishing.....3

Subsection 302.09 – Protection and Curing.....4

Subsection 302.12 – Acceptance Requirements4

SECTION 305 – SUBGRADE LAYER

Subsection 305.06 – Payment.....4

SECTION 307 – PERMEABLE BASES

Subsection 307.02 – Materials.....5

SECTION 308 – IN-PLACE CEMENT TREATED BASE COURSE

All Subsections5

PART V – ASPHALTIC PAVEMENTS

SECTION 502 – SUPERPAVE ASPHALTIC CONCRETE MIXTURES

Subsection 502.02 – Materials5

Subsection 502.14 – Lot Sizes6

SECTION 508 – STONE MATRIX ASPHALT

Subsection 508.01 – Description6

Subsection 508.02 – Materials7

PART VI – RIGID PAVEMENT

SECTION 602 – PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION

Subsection 602.17 – Payment7

PART VII – INCIDENTAL CONSTRUCTION

SECTION 701 – CULVERTS AND STORM DRAINS

All Subsections7

SECTION 704 – GUARD RAIL

Subsection 704.03 – General Construction Requirements18

SECTION 706 – CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING

All Subsections18

SECTION 713 – TEMPORARY TRAFFIC CONTROL

Subsection 713.06 – Pavement Markings20

SECTION 729 – TRAFFIC SIGNS AND DEVICES

Subsection 729.02 – Materials21

Subsection 729.04 – Fabrication of Sign Panels and Markers22

PART VIII – STRUCTURES

SECTION 804 – DRIVEN PILES

Subsection 804.08 – Construction Requirements22

PART IX – PORTLAND CEMENT CONCRETE

SECTION 901 – PORTLAND CEMENT CONCRETE

Subsection 901.06 – Quality Control of Concrete22

Subsection 901.08 – Composition of Concrete22

PART X – MATERIALS

SECTION 1001 – HYDRAULIC CEMENT

Subsection 1001.01 – Portland Cement	23
--	----

SECTION 1003 – AGGREGATES

Subsection 1003.02 – Aggregates for Portland Cement Concrete and Mortar	23
---	----

SECTION 1005 – JOINT MATERIALS FOR PAVEMENTS AND STRUCTURES

Subsection 1005.04 – Combination Joint Former/Sealer	24
--	----

SECTION 1006 – CONCRETE AND PLASTIC PIPE

Subsection 1006.09 – Plastic Yard Drain Pipe	25
--	----

SECTION 1013 – METALS

Subsection 1013.09 – Steel Piles	25
--	----

SECTION 1015 – SIGNS AND PAVEMENT MARKINGS

Subsection 1015.04 – Sign Panels	25
--	----

Subsection 1015.05 – Reflective Sheeting	26
--	----

Subsection 1015.11 – Preformed Plastic Pavement Marking Tape	30
--	----

SECTION 1020 – TRAFFIC SIGNALS

Subsection 1020.01 – Traffic Signal Heads	31
---	----

Subsection 1020.04 – Poles for Traffic Signal Systems	32
---	----

**LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS**

The 2006 Louisiana Standard Specifications for Roads and Bridges and supplemental specifications thereto are amended as follows.

PART I – GENERAL PROVISIONS

SECTION 101 – GENERAL INFORMATION, DEFINITIONS, AND TERMS:

Subsection 101.03 – Definitions (07/07), Pages 3 – 13.

Delete the definition for "Proposal/Bid Guaranty" and substitute the following.

Proposal / Bid Guaranty. The required security furnished with a bid. The only form of security acceptable is a Bid Bond.

SECTION 102 – BIDDING REQUIREMENTS:

Subsection 102.09 – Proposal / Bid Guaranty (07/07), Page 19.

Delete the contents of this subsection and substitute the following.

PROPOSAL/BID GUARANTY. Each bid shall be accompanied by a proposal/bid guaranty in an amount not less than five percent of the total bid amount when the bidder's total bid amount as calculated by the Department in accordance with Subsection 103.01 is greater than \$50,000. No proposal/bid guaranty is required for projects when the bidder's total bid amount as calculated by the Department is \$50,000 or less. The official total bid amount for projects that include alternates is the total of the bidder's base bid and all alternates bid on and accepted by the Department. The proposal/bid guaranty submitted by the bidder shall be a bid bond made payable to the contracting agency as specified on the bid bond form provided in the construction proposal. No other form of security will be accepted.

The bid bond shall be on the "Bid Bond" form provided in the construction proposal, on a form that is materially the same in all respects to the "Bid Bond" form provided, or on an electronic form that has received Department approval prior to submission. The bid bond shall be filled in completely, shall be signed by an authorized officer, owner or partner of the bidding entity, or each entity representing a joint venture; shall be signed by the surety's agent or attorney-in-fact; and shall be accompanied by a notarized document granting general power of attorney to the surety's signer. The bid bond shall not contain any provisions that limit the face amount of the bond.

The bid bond will be written by a surety or insurance company that is in good standing and currently licensed to write surety bonds in the State of Louisiana by the Louisiana Department of Insurance and also conform to the requirements of LSA-R.S. 48:253.

All signatures required on the bid bond may be original, mechanical reproductions, facsimiles or electronic. Electronic bonds issued in conjunction with electronic bids must have written Departmental approval prior to use. The Department will make a listing of approved electronic sureties providers on the Bidx.com site.

SECTION 107 – LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC:

Subsection 107.05 – Federal Aid Participation (04/08), Pages 57 and 58.

Delete the second paragraph.

SECTION 108 – PROSECUTION AND PROGRESS:

Subsection 108.04 – Prosecution of Work (03/05) Pages 74 and 75.

Add the following sentence to the third paragraph of Heading (b).

Should the surety or the Department take over prosecution of the work, the contractor shall remain disqualified for a period of one year from the completion of the project, unless debarment proceedings are instituted.

When the Department of Transportation and Development is not the contracting agency on the project, the second paragraph under Heading (c) is deleted.

PART II – EARTHWORK

SECTION 202 – REMOVING OR RELOCATING STRUCTURES AND OBSTRUCTIONS:

Subsection 202.06 – Plugging or Relocating Existing Water Wells (03/04), Page 105.

Delete the first sentence and substitute the following.

All abandoned wells shall be plugged and sealed at the locations shown on the plans, or as directed by the engineer, in accordance with the “Water Well Rules, Regulations, and Standards, State of Louisiana.” This document is available at the Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245. The Water Resource Section’s telephone number is (225) 274-4172.

PART III – BASE COURSES

SECTION 302 – CLASS II BASE COURSE:

Subsection 302.01 – Description (12/08), Page 150.

Add the following to the third paragraph:

(6) Blended Calcium Sulfate

Subsection 302.02 – Materials (12/08), Pages 150 and 151.

Add the following to the first paragraph:

_____ Blended Calcium Sulfate 1003.01 & 1003.03 (e)

Subsection 302.04 – General Construction Requirements (12/08), Page 152.

Add the following:

Blended calcium sulfate will be allowed in areas of new alignment, fill areas, and cut areas less than one foot.

In cut areas greater than one foot (300 mm), an additional one foot (300 mm) of undercut will be required prior to placement of BCS. The additional undercut area shall be replaced with non-plastic sand embankment and encapsulated with a Class D geotextile fabric. The additional

non-plastic material, geotextile fabric, and undercut shall be at no additional cost to the Department.

Blended calcium sulfate will not be allowed in areas needed to facilitate traffic control or when a soil cement base course is specified in the plans. Blended calcium sulfate shall not be placed within 10 feet (3.0 m) of metal drainage structures. The contractor will be allowed to substitute any untreated Class II base course material listed in Subsection 302.01. Flowable fill under Section 710, or other approved backfill material in Section 701 shall be used to backfill the drainage structure.

Subsection 302.05 – Mixing (08/06) (12/08), Pages 152 and 153.

Delete the first sentence of Subheading (b)(1), In-Place Mixing, and substitute the following.

In-place mixing shall conform to Heading (a)(1) except that the percentage of Type I portland cement required will be 6 percent by volume.

Add Heading (d) as follows:

(d) Blended Calcium Sulfate: Calcium sulfate shall be blended with an approved aggregate or lime prior to placement. The blended calcium sulfate material shall be uniformly mixed and sampled from dedicated stockpiles. Gradation sampling in accordance with Subsection 1003.03 shall be taken from the dedicated stockpiles at the point of material origin.

Subsection 302.06 – Transporting and Placing on Subgrade (12/08), Page 154.

Add the following:

Water shall be added or other suitable means taken to prevent dust during the transporting and placing of dry blended calcium sulfate.

Subsection 302.07 - Compacting and Finishing (12/08), Pages 154 and 155.

Add Heading (e) as follows:

(e) Blended Calcium Sulfate: Blended calcium sulfate shall be placed and spread on the subgrade and compacted to produce layers not exceeding 12 inches (300 mm) compacted thickness. During placement the material shall be thoroughly wetted by application of water to maintain 2 to 4 percent above optimum moisture. After application of water, allow the moisture to reach equilibrium in the base before applying rolling techniques. Rolling of BCS is required to the edge of the embankment or subgrade. Each layer shall be compacted to at least 95 percent of maximum dry density or compacted by an approved established rolling pattern determined by the project engineer before the next layer is placed. Optimum moisture and maximum density shall be determined in accordance with DOTD TR 418 Method G modified to include a maximum drying temperature of 140°F (60°C).

Add Heading (f) as follows:

(f) Proof Rolling: Proof rolling shall be done by a load of 25 tons (25 Mg) in a 12 to 14 cubic yard (9 to 10.5 cubic meters) tandem dump truck with ten wheels or approved loaded truck

Supplemental Specifications (May 2009)

Page 4 of 32

determined by the project engineer. Proof rolling shall be a minimum of 5 passes in each direction at the same locations and at a maximum vehicle speed of 3 mph (4.8 km/h).

All BCS base will be tested by proof rolling prior to placement of surfacing material, including asphalt binder. Any irregularities or soft spots shall be corrected prior to placement of the surfacing material. Any rain event on the project site between the proof rolling and placement of the surfacing will require an additional proof rolling as noted above.

Subsection 302.09 – Protection and Curing (12/08). Page 155.

Add Heading (c) as follows:

(c) Blended Calcium Sulfate: Protection and curing of blended calcium sulfate shall be in accordance with Subsection 302.09(b).

Subsection 302.12 – Acceptance Requirements (12/08). Pages 156 – 161.

Add the following to Heading (a):

The acceptance requirements for blended calcium sulfate base course shall be the same as stone base course with the following modifications. Upon completion of compaction operations, the density will be determined in accordance with DOTD TR 401 except that all moisture content determinations for density calculations shall be conducted by oven drying the material for 24 hours at 140°F (60°C). A forced draft type oven capable of maintaining the temperature shall be provided by the contractor for field moisture content determination for density control.

SECTION 305 – SUBGRADE LAYER:

Subsection 305.06 – Payment (01/08). Page 184.

Delete the contents of this subsection and substitute the following.

305.06 Payment. Payment for subgrade layer will be made at the contract unit price which includes lime, lime treatment, cement, cement treatment, water, stone, recycled portland cement concrete, crushed slag, blended calcium sulfate, asphaltic concrete, and asphalt curing membrane or prime coat, subject to the payment adjustment provisions of Section 1002 for specification deviations of asphalt materials and Subsection 303.11(a) for density deficiencies of cement treated materials. Adjustments in pay for increase or decrease in the percent cement ordered by the engineer will be in accordance with Subsection 303.13. Adjustments in pay for increase or decrease in the percent lime ordered by the engineer will be based on the price of lime shown on paid invoices (total of all charges). The Materials and Testing Section will provide the payment adjustment percentage for properties of asphalt materials.

Payment for geotextile fabric will be included in the contract unit price for subgrade layer.

Payment will be made under:

Item No.	Pay Item	Pay Unit
305-01	Subgrade Layer _____ in (mm) Thick	Square Yard (Sq m)

SECTION 307 – PERMEABLE BASES:

Subsection 307.02 – Materials (09/07), Pages 187 and 188.

Delete the contents of Subheading (b), Asphalt, and substitute the following.

(b) Asphalt: The asphalt for asphalt treated permeable base shall be an approved polymer modified asphalt cement, PG 76-22m, or PG 82-22rm complying with Section 1002. The percentage of asphalt cement shall be 2.0 percent to 4.0 percent by weight (mass) of the total mixture. Asphalt cement content and mixing process shall be such that all aggregates are visibly coated. The mixture shall retain 90 percent coating when tested in accordance with DOTD TR 317.

A job mix formula shall be submitted and approved in accordance with Section 502.

SECTION 308 – IN-PLACE CEMENT TREATED BASE COURSE:

All Subsections within Section 308 – (07/07), Pages 191 – 198.

Whenever the reference to “DOTD TR-432, Method D” is used, it shall mean “DOTD TR-432”.

PART V – ASPHALTIC PAVEMENTS

SECTION 502 – SUPERPAVE ASPHALTIC CONCRETE MIXTURES:

Subsection 502.02 – Materials (08/06) (11/07), Pages 210 – 213.

Delete Table 502-2, Superpave Asphalt Cement Usage under Subheading (a) and substitute the following.

Table 502-2
Superpave Asphalt Cement Usage

Current Traffic Load Level	Mixture Type	Grade of Asphalt Cement
Level 1	Wearing Course	PG 70-22m
	Binder Course	PG 70-22m
	Base Course	PG 64-22
Level 2	Wearing Course	PG 76-22m
	Binder Course	PG 76-22m
Level A	Incidental Paving	PG 70-22m

Note: A PG 82-22 rm, Waste Tire Rubber Modified Asphalt, may be substituted for any other grade of asphalt cement.

Supplemental Specifications (May 2009)
Page 6 of 32

Delete Table 502-3, Aggregate Friction Rating under Subheading (c)(1) and substitute the following.

Table 502-3

Aggregate Friction Rating

Friction Rating	Allowable Usage
I	All mixtures
II	All mixtures
III	All mixtures, except travel lane wearing courses with plan ADT greater than 7000 ¹
IV	All mixtures, except travel lane wearing courses ²

¹ When plan current average daily traffic (ADT) is greater than 7000, blending of Friction Rating III aggregates and Friction Rating I and/or II aggregates will be allowed for travel lane wearing courses at the following percentages. At least 30 percent by weight (mass) of the total aggregates shall have a Friction Rating of I, or at least 50 percent by weight (mass) of the total aggregate shall have a Friction Rating of II. The frictional aggregates used to obtain the required percentages shall not have more than 10 percent passing the No. 8 (2.36 mm) sieve.

² When the average daily traffic (ADT) is less than 2500, blending of Friction Rating IV aggregates with Friction Rating I and/or II aggregates will be allowed for travel lane wearing courses at the following percentages. At least 50 percent by weight (mass) of the total aggregate in the mixture shall have a Friction Rating of I or II. The frictional aggregates used to obtain the required percentages shall not have more than 10 percent passing the No. 8 (2.36 mm) sieve.

Subsection 502.14 – Lot Sizes (11/07), Pages 232 and 233.

Delete the first sentence of the first paragraph and substitute the following.

A lot is a segment of continuous production of asphaltic concrete mixture from the same job mix formula produced for the Department at a specific plant, delivered to a specific DOTD project.

SECTION 508 – STONE MATRIX ASPHALT:

Subsection 508.01 – Description (09/07), Page 274.

Delete this subsection and substitute the following.

508.01 DESCRIPTION. This work consists of furnishing and constructing Stone Matrix Asphalt (SMA) which is a plant mixed asphalt concrete wearing course for high traffic applications. This mixture is a rut resistant hot mix design with stone on stone contact. The mixture shall be composed of a PG 76-22m, or PG 82-22rm asphalt cement and a gap graded coarse aggregate structure. Mineral filler and/or fibers shall be used to control draindown. This work shall be in accordance with these specifications, plan details, and as directed. All requirements of Section 502 apply to Stone Matrix Asphalt, except as modified herein. All plant and paving equipment and processes must meet the requirements of Section 503.

Mixture used for shoulder may be Stone Matrix Asphalt or any mixture type shown in Table 502-5.

Subsection 508.02 – Materials (09/07), Page 274.

Delete the contents of subheading (a), Asphalt Cement and substitute the following.

(a) Asphalt Cement: Asphalt cement shall be PG 76-22m, or PG 82-22rm as listed on QPL 41 and complying with Section 1002.

PART VI – RIGID PAVEMENT

SECTION 602 – PORTLAND CEMENT CONCRETE PAVEMENT

REHABILITATION:

Subsection 602.17 – Payment (09/07), Pages 341 – 344.

Delete the last paragraph of Subheadings (d), Full Depth Corner Patching of Jointed Concrete Pavement, (e) Full Depth Patching of Jointed Concrete Pavement, and (g) Patching Continuously Reinforced Concrete Pavement, and substitute the following.

Payment for deteriorated base course removed as directed by the engineer and replaced with concrete will be made as follows: The value per inch (mm) thickness will be determined by dividing the contract unit price per square yard (sq m) by the plan thickness. Thickness of patches will be measured from the surface that exists at the time of patching. Payment for the additional thickness will be made at 50 percent of the value per inch (mm) thus determined.

PART VII – INCIDENTAL CONSTRUCTION

SECTION 701 – CULVERTS AND STORM DRAINS:

All Subsections within Section 701 (08/07), Pages 347 – 358.

Delete Section 701, Culverts and Storm Drains and substitute the following.

SECTION 701 CULVERTS AND STORM DRAINS

701.01 DESCRIPTION. This work consists of furnishing, installing, and cleaning pipe, pipe arch, storm drains and sewers, also referred to as culverts or conduit, in accordance with these specifications and in conformity with lines and grades shown on the plans or established.

Supplemental Specifications (May 2009)
Page 8 of 32

701.02 MATERIALS. Materials shall comply with the following sections and subsections:

Usable Soil	203.06(a)
Selected Soil	203.06(b)
Plastic Soil Blanket	203.10
Mortar	702.02
Flowable Fill	710
Portland Cement Concrete	901
Reclaimed Asphaltic Pavement (RAP)	1003.01 & 1003.04(d)
Stone	1003.03(b)
Recycled Portland Cement Concrete	1003.03(c)
Granular Material	1003.07
Bedding Material	1003.08
Concrete Sewer Pipe	1006.02
Reinforced Concrete Pipe	1006.03
Reinforced Concrete Pipe Arch	1006.04
Gasket Materials	1006.06
Plastic Pipe	1006.07
Split Plastic Coupling Bands	1006.07(d)(4)
Plastic Yard Drain Pipe	1006.09
Bituminous Coated Corrugated Steel Pipe and Pipe Arch	1007.02
Structural Plate for Pipe, Pipe Arch and Arch	1007.04
Corrugated Aluminum Pipe and Pipe Arch	1007.05
Coupling Bands	1007.09
Reinforcing Steel	1009
Geotextile Fabric	1019

(a) Side Drain Pipe or Side Drain Pipe Arch: When the item for Side Drain Pipe or Side Drain Pipe Arch is included in the contract, the contractor has the option of furnishing reinforced concrete pipe or reinforced concrete pipe arch, corrugated metal pipe or corrugated metal pipe arch, or plastic pipe, as allowed by EDSM II.2.1.1 or unless otherwise specified.

(b) Cross Drain Pipe or Cross Drain Pipe Arch: When the item for Cross Drain Pipe or Cross Drain Pipe Arch is included in the contract, the contractor has the option of furnishing reinforced concrete pipe or reinforced concrete pipe arch, corrugated metal pipe or corrugated metal pipe arch, or plastic pipe, as allowed by EDSM II.2.1.1 or unless otherwise specified.

(c) Storm Drain Pipe or Storm Drain Pipe Arch: When the item for Storm Drain Pipe or Storm Drain Pipe Arch is included in the contract, the contractor has the option of furnishing reinforced concrete pipe or reinforced concrete pipe arch, or plastic pipe, as allowed by EDSM II.2.1.1 or unless otherwise specified.

(d) Yard Drain Pipe: When the item for Yard Drain Pipe is included in the contract, the contractor has the option of furnishing concrete sewer pipe, plastic yard drain pipe or plastic pipe in accordance with Section 1006 unless otherwise specified.

(e) Material Type Abbreviations:

(1) Reinforced Concrete Pipe:

RCP	Reinforced Concrete Pipe
RCPA	Reinforced Concrete Pipe Arch

(2) Corrugated Metal Pipe:

CAP	Corrugated Aluminum Pipe
CAPA	Corrugated Aluminum Pipe Arch
CMP	Corrugated Metal Pipe
CMPA	Corrugated Metal Pipe Arch
CSP	Corrugated Steel Pipe
CSPA	Corrugated Steel Pipe Arch
BCCSP	Bituminous Coated Corrugated Steel Pipe
BCCSPA	Bituminous Coated Corrugated Steel Pipe Arch

(3) Plastic Pipe:

PP	Plastic Pipe
PVCP	Polyvinyl Chloride Pipe
RPVCP	Ribbed Polyvinyl Chloride Pipe
CPEPDW	Corrugated Polyethylene Pipe Double Wall

(f) Joint Type Abbreviations:

T1	Type 1 Joint
T2	Type 2 Joint
T3	Type 3 Joint

(g) Quality Assurance for Pipe: Manufacturing plants will be periodically inspected for compliance with specified manufacturing methods, and material samples will be randomly obtained for laboratory testing for verification of manufacturing lots. Materials approved at the manufacturing plant will be subject to visual acceptance inspections at the jobsite or point of delivery.

701.03 EXCAVATION. For all pipe, when the sides of the trench are stable as evidenced by the sides of the trench being able to maintain a vertical cut face, the minimum trench width at the bottom of the excavation will be 18 inches (460mm) on either side of the outside diameter of the pipe. If the sides of the trench are unstable, the width of the trench at the bottom of the excavation, for plastic or metal pipe, shall be a minimum width of at least 18 inches (460mm) or one pipe diameter on each side of the outside diameter of the pipe, which ever is greater. Surplus material or excavated material that does not conform to the requirements of Subsection 203.06(a) shall be satisfactorily disposed of in accordance with Subsection 202.02. Moisture controls including backfill materials selection and dewatering using sumps, wells, well points or other approved processes may be necessary to control excess moisture during excavation, installation of bedding, over-excavated trench backfilling, pipe placement and pipe backfill.

(a) Over-excavation: When unsuitable soils as defined in Subsection 203.04 or a stable, non-yielding foundation cannot be obtained at the established pipe grade, or at the grade established for placement of the bedding, unstable or unsuitable soils below this grade shall be removed and replaced with granular material meeting the requirements of Subsection 1003.07,

bedding materials meeting the requirements of Subsection 1003.08 or Type A backfill. All granular, backfill materials placed below the established pipe or bedding grade shall be placed in lifts not exceeding 8 inches (200 mm) thick and sufficiently compacted by hand or a dynamic mechanical hand compaction device over the surface of each lift to form a stable, non-yielding foundation at the surface of the established bedding or pipe grade.

When rock is encountered, it shall be removed below grade and replaced with material complying with Subsection 1003.07, bedding materials meeting the requirements of Subsection 1003.08 or Type A backfill. The compacted earth cushion shall have a thickness under the pipe of at least 1/2 inch per foot (40 mm/m) of fill height over the top of the pipe with a minimum thickness of 8 inches (200 mm). All granular, backfill materials placed below the established pipe or bedding grade shall be placed in lifts not exceeding 8 inches (200 mm) thick and sufficiently compacted by hand or a dynamic mechanical hand operated compaction device over the surface of each lift to form a stable, non-yielding foundation at the surface of the established bedding or pipe grade.

Materials used to backfill in an over-excavated portion of a trench do not require encasement in a Geotextile Fabric.

Density of approved materials placed in over-excavated trenches will not be measured or determined.

701.04 FORMING PIPE BED. Bedding material, when specified, shall be constructed in accordance with Section 726. Materials allowed for bedding shall be as specified in Subsection 1003.08 or may be Type A backfill materials. When bedding materials are specified, additional excavation shall be performed below established pipe grade and the bedding material placed in lifts not exceeding 8 inches (200 mm) thick and lightly compacted by hand or a dynamic hand compaction device over the surface of each lift.

When the bottom of the pipe is not laid in a trench but is constructed above natural soils, a uniform bed shall be constructed as specified for the bottom of a trench.

Density of approved bedding materials will not be measured or determined.

701.05 LAYING PIPE. Pipe laying shall begin at the downstream end of the line. The pipe shall be in contact with the foundation throughout its length. Bell or groove ends of pipe and outside circumferential laps of riveted metal pipe shall be placed facing upstream. Riveted seam metal pipe shall be placed with longitudinal laps at sides. Pipes in each continuous line shall have the same wall thickness. Metal pipes provided with lifting lugs shall be handled only by these lugs.

After pipe has been laid and before backfill is placed, the engineer will inspect the pipe for alignment, grade, integrity of joints, and coating damage.

701.06 JOINING PIPE.

(a) Joint Usage:

(1) Type 1 (T1) joints shall be used for side drains under drives and similar installations.

(2) Type 2 (T2) joints shall be used for cross drains under roadways, including turnouts.

(3) Type 3 (T3) joints shall be used for closed storm drain systems, flumes and siphons.

(b) Concrete Pipe: Concrete pipe may be either bell and spigot, or tongue and groove. The method of joining pipe sections shall be such that ends are fully entered and inner surfaces are flush and even.

An approved mechanical pipe puller shall be used for joining pipes over 36 inches (900 mm) in diameter. For pipe 36 inches (900 mm) or less in diameter, any approved method for joining pipe may be used which does not damage the pipe.

Joints shall comply with Subsection 1006.05, and shall be sealed with gasket material installed in accordance with the manufacturer's recommendations.

(c) Metal Pipe: Metal pipe shall be firmly joined by coupling bands. Bands shall be centered over the joint.

For Type 1 joints, approved gasket material shall be placed in one corrugation recess on each side of the joint at the coupling band and on each band connection in such manner to prevent leakage.

When Type 2 or 3 joints are specified, joining of metal pipe sections shall conform to the following provisions:

(1) General: Band joints shall be sealed with gasket material. Gasket material shall be placed in accordance with the plan details.

(2) Circular Section: Connecting bands shall be of an approved design and shall be installed in accordance with plan details.

(3) Arch Section: Connecting bands shall be a minimum of 12 inches (300 mm) wide for pipe arch less than 36 inches (900 mm) round equivalent diameter, and a minimum of 21 inches (525 mm) wide for 36 inches (900 mm) round equivalent diameter pipe arch and greater. Bands shall be connected at the ends by approved angle or strap connections. Connecting bands used for 36 inches (900 mm) round equivalent diameter pipe arch and above shall be 2-piece bands.

(d) Plastic Pipe: Joints for plastic pipe shall be either bell and spigot or split coupling bands.

(1) Bell and Spigot Type Joint System: The method of joining pipe sections shall be such that ends are fully entered and inner surfaces are flush and even.

Any approved method for joining pipe may be used which does not damage the pipe.

Joints shall be approved and shall be sealed with a gasket system utilizing gasket material complying with Subsection 1006.06(a).

(2) Split Coupling Type Joint System: Split coupling bands shall comply with all dimensional and material requirements of Subsection 1006.07. The bands shall be centered over the joint. The split coupling band shall be secured to the pipe with a minimum of five stainless steel or other approved corrosion resistant bands.

Joints shall be approved and shall be sealed with gasket material. Gasket material shall be placed in the first two corrugation recesses on each side of the pipe connections. Gasket material shall also be placed on each band connection to prevent leakage. When flexible plastic gasket material is used it shall be a minimum of 1/2 inch (13 mm) in size. The bands shall be tightened to create overlap of the band and shall adequately compress the gasket material.

(e) Connections: Approved connections shall be used when joining new pipes to existing pipes. When concrete collars are required in order to extend the ends of existing pipes that have been damaged or to join different types or sizes of pipes, the concrete collars shall be constructed in accordance with plan details, the applicable requirements of Section 901, and as directed.

(f) Geotextile Fabric, Pipe Joints: For concrete, metal and plastic pipes, Types 2 and 3 joints shall be wrapped with geotextile fabric for a minimum of 12 inches (300 mm) on each side of joint for pipe 36 inches (900 mm) or less in diameter and a minimum of 18 inches (450 mm) on each side of the joint for pipe greater than 36 inches (900 mm) in diameter. Ends of the fabric shall be lapped at least 10 inches (250 mm). The edges and ends of fabric shall be suitably secured for the entire circumference of the pipe.

701.07 RELAYING PIPE. If specified or directed, existing pipes shall be removed and suitable sections relaid as specified for new pipes.

701.08 BACKFILLING.

(a) General: Prior to backfilling, pipes found to be damaged or out of alignment or grade shall be removed and reinstalled, or replaced.

Type A backfill material shall be stone, recycled portland cement concrete, flowable fill, or RAP.

Type B backfill materials are selected soils. Where Type B backfill materials are called for, Type A backfill materials may be substituted.

When corrugated metal pipe is used, the backfill material shall be tested and shall have a resistivity greater than 1500 ohm-cm and a pH greater than 5 when tested in accordance with DOTD TR 429 and DOTD TR 430 respectively.

When Type A backfill material is used, geotextile fabric surrounding this backfill shall be placed in accordance with Subsection 726.03 between the aggregate backfill material and all other natural or placed soils in the trench or embankment. Care shall be taken to prevent damage to geotextile fabric during placement of backfill material. For concrete pipe, the fabric shall enclose not only the initial backfill but shall be wrapped over the top of the pipe with at least 12 inches (300 mm) of overlap.

When a trench box or trench sheeting is used in unstable soils and/or for worker safety, and when moved during backfilling operations, filling and additional compaction of the disturbed zone of backfill must take place immediately and in a manner acceptable to the engineer.

Initial backfill is a structural backfill encasing the pipe from the bottom of the pipe to the springline for concrete pipe and to a point one foot (0.3 m) above the top of the pipe for both metal and plastic pipe. Final backfill is not a structural backfill and shall extend from the top of the initial backfill to the top of the natural ground or subgrade in cut areas or to the top of existing ground in fill areas. Any fill required above the final backfill is considered and treated as embankment.

(b) Backfill Applications: For projects using A+B+C bidding method where rigid and flexible pavement alternates are considered, backfill application (2) below, "Cross Drains Under Flexible Pavements", shall apply for either rigid or flexible pavements.

(1) Under Concrete Pavements: Type B backfill may be used as initial and final backfill for all pipes, culverts or drains under concrete pavements. Placement and compaction shall be as specified in Heading (d) below.

(2) Cross Drains Under Flexible Pavements: All reaches, exclusive of those portions of the pipe which are under shoulders, of cross drains and all other culverts, pipes or drains that cross the centerlines of the new roadway or centerlines of existing roadways, such as intersections and are under flexible pavements shall receive an initial backfill of Type A material. Type B backfill materials may be used as final backfill for all pipes. Placement and compaction shall be as specified in Heading (c) and (d) below. Where the subgrade is above existing ground, embankment material as specified for the remainder of the project shall be used from the top of the final backfill to the top of the established embankment grade.

(3) Other Drains Under Flexible Pavements: All reaches of all culverts, pipes or drains under flexible pavements that do not cross the centerlines of new roadway or centerlines of existing roadways, and exclusive of those portions of the pipe which are totally under shoulders, shall receive an initial and final backfill of Type B material. Placement and compaction shall be as specified in Heading (d) below. Where the subgrade is above existing ground, embankment material as specified for the remainder of the project shall be used from the top of the final backfill to the top of the established embankment grade.

(4) Other Areas: All culverts, pipes or drains in nonpaved areas or paved areas that serve as driveways or shoulders shall receive an initial and final backfill of Type B material. Placement and compaction shall be as specified in Heading (d) below.

(5) Pipes Subject to Construction Traffic; The embankment or pipe backfill shall be constructed to a minimum of 24 inches (600 mm) over the pipe before heavy construction equipment is allowed to cross the installation. Where practical, installations with less than 24 inches (600 mm) of cover over the top of the pipe shall be constructed after heavy hauling is completed over the pipe location. After completion of hauling operations, the contractor shall remove excess cover material. Pipe damaged by hauling and backfilling operations shall be removed and reinstalled, or replaced, at no direct pay.

(c) Placement and Compaction; Type A Backfill: For all pipes, culverts and conduits under paved and nonpaved areas, where Type A backfill material is used, the Type A backfill shall be thoroughly hand compacted under the pipe haunches and then dynamically compacted in layers not exceeding 8 inches (200 mm) compacted thickness. Compaction under the haunches of the pipe shall initially be by hand tamping or other acceptable means, until a level is reached that the dynamic tamping can commence. Each lift shall be compacted by applying at least eight

passes of a hand operated, dynamic mechanical compaction device over the surface of each lift. With approval of the engineer, layer thickness may be increased to 12 inches (300 mm) with verification of satisfactory installation and performance. If flowable fill is used it shall be furnished, placed and consolidated in accordance with Section 710. The contractor shall control placement operations during initial backfill operations so as not to damage protective coatings on metal pipes. The contractor shall repair damaged coatings at no additional pay.

(d) Placement and Compaction; Type B Backfill: For all pipes, culverts and conduits, where Type B backfill is allowed, the Type B material shall be placed in layers not exceeding 8 inches (200 mm) compacted thickness. Compaction shall be with suitable mechanical equipment. With approval of the engineer, layer thickness may be increased to 12 inches (300 mm) with verification of satisfactory installation and performance.

(e) Placement and Compaction; Trenchless or Partial Trench Condition: All pipes, culverts, drains and conduits placed with any portion of the pipe above existing ground must also comply with Subsections (a),(b) (c) and (d) above for the portion of the pipe within a trench and that portion of the pipe not constructed in a trench. The width of initial and final backfill of that portion above existing ground and not within a trench will be constructed to such a width that the requirements for placement, compaction and density are met.

(f) Density Requirements: The in place density of Type A backfill materials and bedding materials, will not be measured or determined. Type A backfill, exclusive of RAP and flowable fill, shall be placed at or near optimum moisture content determined in accordance with DOTD TR 415 or 418. RAP materials shall be placed and compacted in a slightly moist condition.

The maximum dry density of initial or final Type B backfill under all paved areas which are to be under traffic will be determined in accordance with DOTD TR 415 or TR 418 and in-place density determined in accordance with DOTD TR 401. Initial and final Type B backfill under all paved areas, under traffic, shall be placed at or near optimum moisture content determined in accordance with DOTD TR 415 or TR 418. Each layer shall be compacted by approved methods prior to the placement of a subsequent layer. The engineer will approve the compaction method based upon validation that such method, including moisture control, will achieve at least 95 percent of maximum dry density as determined in accordance with DOTD TR 401. With approval of the engineer, density testing may be waived on subsequent layers with backfill installation in accordance with approved compaction methods and continued satisfactory performance.

Initial and final backfill in unpaved areas or paved areas such as shoulders or driveways, shall be placed evenly and compacted along the length of the culvert, pipe or drain from the top of the initial backfill to the top of the subgrade. Layered backfill shall be compacted at least to the density of the adjoining existing soils or the compaction required of the laterally adjoining layers of soil immediately outside the trench for embankment elevations. Initial and final backfill shall be placed and compacted at or near optimum moisture content determined in accordance with DOTD TR 415 or TR 418.

701.09 INSPECTION OF PIPES. After completion of embankment and prior to roadway surfacing, the engineer shall inspect pipes for proper alignment and integrity of joints. Any misaligned pipe or defective joints shall be corrected by the contractor at no direct pay.

(a) Plastic Pipe: Installed plastic pipe shall be tested to ensure that vertical deflections do not exceed 5.0 percent. Maximum allowable deflections shall be governed by the mandrel requirements stated herein.

Deflection tests shall be performed no sooner than 30 calendar days after installation and compaction of backfill. The pipe shall be cleaned and inspected for offsets and obstructions prior to testing.

For pipe 36 inches (900 mm) and less in diameter, a mandrel shall be pulled through the pipe by hand to ensure that maximum allowable deflections have not been exceeded. The mandrel shall be approved by the engineer prior to use. Use of an unapproved mandrel or a mandrel altered or modified after approval will invalidate the test. If the mandrel fails to pass, the pipe is overdeflected.

Unless otherwise permitted, overdeflected pipe shall be uncovered and, if not damaged, reinstalled. Damaged pipe shall not be reinstalled, but shall be removed and replaced with new pipe. Any pipe subjected to any method or process other than removal, which attempts, even successfully, to reduce or cure any overdeflection, shall be removed and replaced with new pipe.

The mandrel shall be a rigid, nonadjustable, odd-numbered legged (minimum 9 legs) mandrel having a length not less than its nominal diameter or 24 inches (600 mm), whichever is less. The minimum diameter at any point shall be 5.0 percent less than the base inside diameter of the pipe being tested. The mandrel shall be fabricated of steel, aluminum or other approved material fitted with pulling rings at each end. The nominal pipe size and outside diameter of the mandrel shall be stamped or engraved on some segment other than a runner. A suitable carrying case shall be furnished.

For pipe larger than 36 inches (900 mm) in diameter, deflection shall be determined by a method approved by the engineer. If a mandrel is selected, the minimum diameter, length, and other requirements shall conform to the above requirements.

Mandrel testing shall be conducted by the contractor in the presence of the engineer. Mandrel testing shall be at no direct pay.

(b) Metal Pipe: If the inside diameter of metal pipe or rise dimension of metal pipe arch deflects more than 5.0 percent from original dimensions, they shall be removed and reinstalled, unless they do not rebound or are damaged. Pipe or pipe arch which are damaged or do not rebound shall be removed and replaced at no direct pay. Measurement of deflection will be made by the engineer away from rerolled ends.

701.10 CLEANING PIPES.

(a) Existing Pipes: Pipes designated to be cleaned shall be cleaned of soil, debris and other materials to the invert of the pipe. Designated pipes shall be cleaned by approved methods that will not damage the pipes. Any damage caused by the contractor's operations shall be satisfactorily repaired at no direct pay.

Removed soil, debris and other materials shall be disposed of in accordance with Subsection 202.02 or as otherwise approved in writing.

(b) Contractor Installed Pipes: Prior to final acceptance, pipes shall be cleaned of all debris and soil to the invert of the pipe at no direct pay.

Supplemental Specifications (May 2009)

Page 16 of 32

Removed soil, debris and other materials shall be disposed of in accordance with Subsection 202.02 or as otherwise approved in writing.

701.11 STUBBING AND PLUGGING PIPES. When it is required that pipes be plugged, such plugs shall be constructed of Class R concrete complying with Section 901. Thickness of plug and method of construction shall be as directed.

When new pipes are to be stubbed into new or existing pipes or other structures, the connection shall be made with approved mortar complying with Subsection 702.02.

701.12 MEASUREMENT. Pipe, both new and relaid, will be measured in linear feet (lin m) as follows unless stated otherwise.

(a) Pipe not confined by fixed structures will be measured by the number of joints at the nominal length of each joint.

(b) Pipe confined by fixed structures will be measured along the pipe between the termini of pipe in structure walls.

(c) Pipe confined by a fixed structure on one end and unconfined at the other end will be measured along the pipe from the terminus of pipe in the structure wall to the unconfined end of pipe.

(d) Fabricating of pipe tees, elbows and other fittings will be measured per each fitting. The length of pipe in such fittings will be included in the pay length measurement of pipes of which they form a part.

(e) Excavation required for installation of pipes will not be measured for payment, except as otherwise specified in Subsection 203.14.

(f) Furnishing and placing backfill material below existing ground level for pipes will not be measured for payment. Backfill material needed to complete backfill above natural ground and around pipes that extend above natural ground will be measured and payment will be made under applicable earthwork items. When specified, flowable fill will be measured and paid for in accordance with Section 710.

(g) Plugging and stubbing of pipes will not be measured for payment.

(h) Cleaning existing pipes will be measured by the length of pipe cleaned and accepted.

(i) Concrete collars will be measured per each.

701.13 PAYMENT.

(a) Payment for pipe will be made at the contract unit price per linear foot (lin m) of the types and sizes specified.

When plastic pipe is specified on the plans or elected to be used by the contractor, payment will be made at the contract unit price per linear foot (lin m) of the types and sizes specified in accordance with the payment schedule of Table 701-1.

Table 701-1
Payment Schedule for Plastic Pipe

Percent Payment	Stage of Completeness
75	After placement and backfill has been completed
25	After the pipe has met vertical deflection requirements in accordance with Subsection 701.09(a)

(b) Payment for fabricating pipe tees, elbows and other fittings will be made at the contract unit price per each fitting.

(c) When unstable conditions are encountered, the additional excavation will not be measured for payment; however, the additional materials furnished and placed for the pipe foundation will be measured and paid for as follows:

(1) Granular Materials: Payment will be made under the embankment item. The net section volume of the materials will be multiplied by 3 to determine the pay volume. When the contract does not include a pay item for embankment, payment will be made in accordance with Subsection 104.02.

(2) Bedding Material: Measurement and payment will be made in accordance with Section 726. When the contract does not include a pay item for bedding material, payment will be made in accordance with Subsection 104.02.

(d) Payment for cleaning existing pipes will be made at the contract unit price per linear foot (lin m).

(e) Payment for concrete collars will be made at the contract unit price per each.

Payment will be made under:

Item No.	Pay Item	Pay Unit
701-01	Cross Drain Pipe (Size & Type)	Linear Foot (Lin m)
701-02	Cross Drain Pipe Arch (Size & Type)	Linear Foot (Lin m)
701-03	Storm Drain Pipe (Size & Type)	Linear Foot (Lin m)
701-04	Storm Drain Pipe Arch (Size & Type)	Linear Foot (Lin m)
701-05	Side Drain Pipe (Size)	Linear Foot (Lin m)
701-06	Side Drain Pipe Arch (Size)	Linear Foot (Lin m)
701-07	Yard Drain Pipe (Size)	Linear Foot (Lin m)
701-08	Relaying Pipe	Linear Foot (Lin m)
701-09	Fabricating Pipe Fittings	Each
701-10	Reinforced Concrete Pipe (Extension)	Linear Foot (Lin m)
701-11	Reinforced Concrete Pipe Arch (Extension)	Linear Foot (Lin m)
701-12	Corrugated Metal Pipe (Extension)	Linear Foot (Lin m)
701-13	Corrugated Metal Pipe Arch (Extension)	Linear Foot (Lin m)

Supplemental Specifications (May 2009)
Page 18 of 32

701-14	Cleaning Existing Pipes	Linear Foot (Lin m)
701-15	Concrete Collar	Each
701-16	Plastic Pipe (Extension)	Linear Foot (Lin m)

SECTION 704 – GUARD RAIL:

Subsection 704.03 – General Construction Requirements (01/05), Pages 368 and 369.

Add the following to Heading (d), Guard Rail End Treatments.

All end treatments shall bear a label indicating the manufacturer and exact product name of the end treatment along with its assigned NCHRP 350 test level. This label shall resist weathering and shall be permanently affixed to the railing in such a way as to be readily visible.

SECTION 706 – CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING:

All Subsections within Section 706 (04/08), Pages 375 – 377.

Delete Section 706, Concrete Walks, Drives and Incidental Paving and substitute the following.

SECTION 706
CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING

706.01 DESCRIPTION. This work consists of furnishing and constructing portland cement concrete walks, handicapped curb ramps, drives and incidental paving slabs in accordance with these specifications and in conformity with lines, grades and dimensions shown on the plans or established.

706.02 MATERIALS. Materials shall comply with the following Section or Subsections.

Portland Cement Concrete (Class M)	901
Joint Filler	1005.01(c)
Reinforcing Steel	1009.01
Curing Materials	1011.01

706.03 CONSTRUCTION REQUIREMENTS.

(a) Excavation: Excavation shall be made to required depth and width. The top of the subgrade shall be shaped and compacted to a firm, even surface conforming to the section shown on the plans. Unsuitable material shall be removed and disposed of in accordance with Subsection 202.02 and replaced with approved material at no direct pay.

(b) Forms: Forms shall be of wood or metal and shall extend the full depth of concrete. Forms shall be straight, clean and of sufficient strength to resist the pressure of concrete. Bracing of forms shall be such that forms remain in horizontal and vertical alignment until their removal.

Concrete may be placed by slip-form methods. Slip-formed concrete shall be placed with an approved machine designed to spread, vibrate, consolidate and finish concrete in one pass of the machine in such manner that minimum hand finishing is necessary. Sliding forms shall be

rigidly held together to prevent spreading of forms. After the passing of the side forms there shall be no noticeable slumping of concrete.

(c) Subgrade: The subgrade shall be thoroughly moistened immediately prior to placing concrete.

(d) Placing and Finishing: Concrete shall be placed on the subgrade, struck off to required thickness and tamped sufficiently to bring the mortar to the surface. The surface shall be finished with a wood float or steel trowel followed by brushing to a slightly rough finish. Joints and edges shall be rounded with an edging tool having a 1/4-inch (6 mm) radius.

(e) Joints:

(1) Expansion Joints: Expansion joints shall be filled with 1/2 inch (13 mm) thick preformed expansion joint filler. Expansion joints shall be installed at maximum 100-foot (30 m) intervals, and between intersecting paving and any fixed structure such as a building, bridge or curbing, and between intersecting paving and the handicapped curb ramps. Expansion joint material shall extend for the full width and depth of paving.

(2) Weakened Plane: Weakened planes shall be formed by a jointing tool or other acceptable means. Weakened planes shall extend into concrete for at least 1/4 of the depth and shall be approximately 1/8 inch (3 mm) wide.

a. Walks: Spacing of weakened planes for walks shall be equal to the width of walk.

b. Drives: A longitudinal weakened plane shall be formed along the centerline of drives more than 16 feet (5 m) wide, and transverse weakened planes shall be formed at not more than 16-foot (5 m) intervals.

c. Incidental Paving: Weakened planes for incidental paving shall be formed at intervals not exceeding 30 times the thickness of the concrete in length or width. Incidental paving poured adjacent to jointed concrete shall be jointed to match existing joints, with intermediate joints formed as necessary not to exceed the maximum joint spacing.

(3) Construction Joints: Construction joints shall be formed around manholes, utility poles, etc., extending into paving and 1/4 inch (6 mm) thick preformed expansion joint filler shall be installed in these joints.

(4) Tie-ins: Tie-ins of existing concrete shall be made by full depth sawing at no direct pay.

(f) Curing: Concrete shall be cured in accordance with Subsection 601.10.

(g) Detectable Warning Surface for Handicap Ramps and At-Grade Sidewalk Intersections: Sidewalks, when intersecting with roadways, shall be equipped with a detectable warning surface system consisting of raised truncated domes as a transition between the sidewalk and the street as required by the Americans with Disabilities Act, 28 CFR Part 36, ADA Standards for Accessible Design.

Detectable warnings (truncated domes) shall be installed on the ramp surface over the full width of the ramp throat for a distance of 24 inches (600 mm) in the direction of travel from the back of the curb. Detectable warnings (truncated domes) shall also be installed on at-grade sidewalks intersecting with roadways for a distance of 36 inches (900 mm) in the direction of travel from the end of the sidewalk. Truncated domes shall be laid out on a square grid in order to allow enough space for wheelchairs to roll between the domes.

Supplemental Specifications (May 2009)

Page 20 of 32

Light reflectance of the truncated domes and the underlying surface must meet the 70 percent contrast requirement of ADAAG.

706.04 MEASUREMENT. Quantities of concrete walks, drives and incidental paving slabs for payment will be the design quantities as specified on the plans and adjustments thereto. Design quantities will be adjusted if the engineer makes changes to adjust to field conditions, if design errors are proven or if design changes are made. Design areas are based on the horizontal dimensions shown on the plans. Excavation, backfill, reinforcing steel and joint materials will not be measured for payment.

Handicapped curb ramps, including the detectable surface warning system, will be measured per each.

Detectable surface warning systems for at-grade sidewalk intersection will not be measured for payment.

706.05 PAYMENT. Payment for concrete walks, drives and incidental paving will be made on a lot basis at the contract unit price per square yard (sq m), adjusted in accordance with the following provisions. Payment for each lot will be made in accordance with Table 901-6. Size, sampling, and testing of each concrete lot shall be in accordance with the Materials Sampling Manual.

Payment for handicapped curb ramps, including the detectable surface warning system, will be made by each and shall include, but not limited to, curb transitions, detectable warning system, gutter, landing and base.

Payment will be made under:

Item No.	Pay Item	Pay Unit
706-01	Concrete Walk (inch (mm) Thick)	Square Yard (Sq m)
706-02	Concrete Drive (inch (mm) Thick)	Square Yard (Sq m)
706-03	Incidental Concrete Paving (inch (mm) Thick)	Square Yard (Sq m)
706-04	Handicapped Curb Ramps	Each

SECTION 713 – TEMPORARY TRAFFIC CONTROL:

Subsection 713.06 – Pavement Markings (08/06), Pages 400 – 403.

Delete Table 713-1, Temporary Pavement Markings and substitute the following.

Table 713-1
Temporary Pavement Markings^{1,2}

		Two-lane Highways	Undivided Multilane Highways	Divided Multilane Highways
S H O R T T E R M	ADT<1500; or ADT>1500 and time<3 days	Lane lines 4-foot (1.2 m) tape on 40-foot (12 m) centers; with "Do Not Pass" and "Pass With Care" signs as required		
	ADT>1500; Time>3 days and<2 weeks	Lane lines 4-foot (1.2-m) tape on 40-foot (12-m) centers with no passing zone markings		
	All ADT's with time <2 weeks		Lane lines 4-foot (1.2m) tape on 40-foot (12 m) centers; double yellow centerline	Lane lines 4-foot (1.2 m) tape on 40-foot (12 m) centers
L O N G T E R M	All ADT's with time >2 weeks	Standard lane lines, no-passing zone markings, legends and symbols and when pavement width is 22 feet (6.7 m) or greater, edge lines	Standard lane lines, centerlines, edge lines, and legends and symbols	Standard lane lines, centerlines, edge lines, and legends and symbols.

¹No-passing zones shall be delineated as indicated whenever a project is open to traffic.

²On all Asphaltic Surface Treatments that are open to traffic and used as a final wearing course or as an interlayer, temporary pavement markings (tabs) on 20-foot (6 m) centers shall be used, in lieu of the 4-foot (1.2 m) tape, on 40-foot (12 m) centers.

SECTION 729 – TRAFFIC SIGNS AND DEVICES:

Subsection 729.02 – Materials (04/08), Pages 456 and 457.

Delete the contents of Heading (a), Sign and Marker Sheeting, and substitute the following.

(a) Sign and Marker Sheeting: Sheeting material for sign panels, delineators, barricades and other markers shall comply with Section 1015. All permanent signs shall meet the requirements of ASTM D 4956, Type X.

Supplemental Specifications (May 2009)
Page 22 of 32

Subsection 729.04, Fabrication of Sign Panels and Markers (04/08), Pages 458 – 460.

Delete the third paragraph of Heading (c), Sheeting Application and substitute the following.

ASTM D 4956 Type X reflective sheeting shall be applied with an orientation determined by the engineer to obtain the optimum entrance angle performance. Fabricated vertical splices in ASTM D 4956 Type X reflective sheeting will be allowed only when the horizontal dimension of the sign face or attached shield is in excess of the maximum manufactured width of the sheeting. Fabricated vertical splices in ASTM D 4956 Type X reflective sheeting will also be allowed when the specified orientation will create excessive sheeting waste.

SECTION 804 – DRIVEN PILES:

Subsection 804.08 – Construction Requirements (04/07), Pages 548 – 554.

Delete the first sentence of Heading (a), Preboring and substitute the following.

Preboring by augering, wet-rotary drilling, or other methods used to facilitate pile driving will not be permitted unless specified in the plans or allowed by the engineer.

Delete the first sentence of Heading (b), Jetting and substitute the following.

Jetting will not be permitted unless allowed in the plans or allowed by the engineer.

SECTION 901 – PORTLAND CEMENT CONCRETE:

Subsection 901.06 – Quality Control of Concrete (08/06), Pages 726 – 731.

Add the following to the contents of Heading (b), Quality Control Tests.

The contractor shall be responsible for monitoring the components (cement, mineral and chemical admixtures, aggregates) in their mix to protect against any changes due to component variations. As component shipments arrive, the contractor shall verify slump, air content and set time by testing at ambient temperatures. The contractor shall make adjustments to the mix design to rectify any changes which would adversely affect constructability, concrete placement or the specifications. The contractor shall submit test results to the Department for review each day of paving. Testing to validate component consistency will be documented on the control logs. Conformance or variation in mix parameters (workability, set times, air content, etc.) shall be noted on the control logs. The contractor shall provide a copy of the proposed testing plan to the engineer for record. Acceptance of the plan does not relieve the contractor's responsibility for consistency.

Subsection 901.08 – Composition of Concrete (12/05), Pages 732 – 734.

Add the following to Heading (a).

The blended cement containing up to 50 percent of grade 100 or grade 120 ground granulated blast-furnace slag must be in compliance with Subsection 1001.04 for portland blast-furnace slag cement.

SECTION 1001 – HYDRAULIC CEMENT:

Subsection 1001.01 – Portland Cement (09/07). Page 749.

Delete the contents of this subsection and substitute the following.

1001.01 PORTLAND CEMENT. Portland cement shall be from an approved source listed in QPL 7 and shall comply with AASHTO M 85.

Alkali content calculated as sodium oxide equivalent shall not exceed 0.60 percent by weight for all types of cement.

SECTION 1003 – AGGREGATES:

Subsection 1003.02 – Aggregates for Portland Cement Concrete and Mortar (07/07).

Pages 763 – 766.

Delete the contents of Heading (c), Aggregates for Types B and D Pavements, and substitute the following.

(c) Aggregates for Types B and D Pavements: For the combined aggregates for the proposed portland cement concrete pavement mix, the percent retained based on the dry weight (mass) of the total aggregates shall meet the requirements of Table 1003-1A for the type of pavement specified in the plans. Additionally, the sum of the percents retained on any two adjacent sieves so designated in the table shall be at least 12 percent of the total combined aggregates. The maximum amounts by weight (mass) of deleterious materials for the total aggregate shall be the same as shown in Subsection 1003.02(b).

Table 1003-1A
Aggregates for Types B and D Pavements

U.S. Sieve	Metric Sieve	Percent Retained of Total Combined Aggregates	
		Pavement Type	
		Type B	Type D
2 1/2 inch	63 mm	0	0
2 inch	50 mm	0	0-20
1 1/2 inch	37.5 mm	0-20	0-20
1 inch	25.0 mm	0-20	5-20
3/4 inch	19.0 mm	5-20	5-20
1/2 inch	12.5 mm	5-20	5-20
3/8 inch	9.5 mm	5-20	5-20
No. 4	4.75 mm	5-20	5-20
No. 8	2.36 mm	5-20	5-20
No. 16	1.18 mm	5-20	5-20
No. 30	600 µm	5-20	5-20
No. 50	300 µm	0-20	0-20
No. 100	150 µm	0-20	0-20
No. 200	75 µm	0-5	0-5
Note: For the sieves in the shaded areas, the sum of any two adjacent sieves shall be a minimum of 12 percent of the total combined aggregates.			

Each type of aggregate to be used in the proposed mixture shall be sampled and tested individually. The percent of total combined aggregates retained shall be determined mathematically based on the proportions of the combined aggregate blend. All gradation calculations shall be based on percent of dry weight (mass).

SECTION 1005 – JOINT MATERIALS FOR PAVEMENTS AND STRUCTURES:

Subsection 1005.04 – Combination Joint Former/Sealer (11/05), Pages 782 and 783.

Delete Heading (a) and substitute the following.

(a) Description: This joint former/sealer is intended for use in simultaneously forming and sealing a weakened plane in portland cement concrete pavements.

The material shall consist of an elastomeric strip permanently bonded either mechanically or chemically at the top of each of two rigid plastic side frames and covered with a removable plastic top cap. Side frames shall be of such configuration that when the sealer is inserted into plastic concrete and vibrated, a permanent bond forms between side frames and concrete.

Delete Heading (b)(1) and substitute the following.

(1) Elastomer: The elastomer strip portion of the material shall be manufactured from vulcanized elastomeric compound using polymerized chloroprene or thermoplastic vulcanizate as the base polymer, and shall comply with the following requirements:

<u>Property</u>	<u>ASTM Test Method</u>	<u>Requirements</u>	
		<u>Polymerized Chloroprene</u>	<u>Thermoplastic Vulcanizate</u>
Tensile Strength, kPa, Min.	D 412	12,400	7,400
Elongation at Break, % Min.	D 412	200	400
Hardness, Shore A	D 2240	65 ± 10	65 ± 10
Properties after Aging, 70 h @ 100°C	D 573		
Tensile Strength, % Loss, Max.		20	20
Elongation, % loss, Max.		25	25
Hardness, pts. increase, Max.		10	10
Ozone Resistance, 20% strain or bentloop, 300 pphm in air, 70 h @ 40°C	D 1149	no cracks	no cracks
Oil Swell, IRM 903, 70 h @ 100°C, wt change, % Max.	D 471	45	75

Delete Headings (b)(2) and (b)(3) and substitute the following:

(2) Bond of Elastomer to Plastic: The force required to shear the elastomer from the plastic shall be a minimum of 5.0 pounds per linear inch (90 g/mm) of sealer when tested in accordance with DOTD TR 636.

(3) Bond of Plastic to Cement Mortar: This bond will be evaluated and shall meet the following requirements:

The force required to separate the cement mortar from the plastic shall be a minimum of 5.0 pounds per linear inch (90 g/mm) of sealer when tested in accordance with DOTD TR 636.

SECTION 1006 – CONCRETE AND PLASTIC PIPE:

Subsection 1006.09 – Plastic Yard Drain Pipe (06/07), Page 789.

Delete the contents of Subheading (a)(3), Ribbed Polyvinyl Chloride Pipe (RPVCP) and substitute the following.

Ribbed Polyvinyl Chloride Pipe (RPVCP): Ribbed Polyvinyl Chloride Pipe shall comply with ASTM F 794, Series 46 or ASTM F 949 (46 psi).

SECTION 1013 – METALS:

Subsection 1013.09 – Steel Piles (08/06) Page 822.

Delete the title and references to “Steel Piles” in this subsection and substitute “Steel H Piles”.

SECTION 1015 – SIGNS AND PAVEMENT MARKINGS:

Subsection 1015.04 – Sign Panels (05/07), Pages 832 and 833.

Delete the contents of Heading (a), Permanent Sign Panels and substitute the following.

Supplemental Specifications (May 2009)
Page 26 of 32

(a) Permanent Sign Panels: Flat panels shall be aluminum sheets or plates complying with ASTM B 209, Alloy 6061-T6 or Alloy 5052-H38. Extruded aluminum panels shall comply with ASTM B 221 (ASTM B 221M), Alloy 6063-T6 and after fabrication, have a flatness equal to or less than 0.031 inch per foot of length and 0.004 inch per inch of width.

Subsection 1015.05 - Reflective Sheeting (04/08), Pages 833 – 838.

Delete the contents of this subsection and substitute the following.
1015.05 REFLECTIVE SHEETING.

(a) Permanent and Temporary Standard Sheeting: Reflective sheeting shall be one of the following standard types as specified on the plans and complying with ASTM D 4956 except as modified herein. Permanent warning, regulatory, guide and supplemental guide sign sheeting shall meet the requirements of ASTM D 4956 Type X. Reflective sheeting for temporary signs and devices shall meet the requirements of ASTM D 4956 Type III except as noted in Subsection 1015.05(f). Reflective sheeting shall be an approved product listed in QPL 13.

- Type III - A high-intensity retroreflective sheeting that is typically encapsulated glass-bead retroreflective material.
- Type VI - An elastomeric high-intensity retroreflective sheeting without adhesive. This sheeting is typically a vinyl microprismatic retroreflective material.
- Type X - A super high-intensity retroreflective sheeting having highest retroreflectivity characteristics at medium distances. This sheeting is typically an unmetalized microprismatic retroreflective element material.

(b) Fluorescent Pink Retroreflective Sheeting: Signs for temporary control of traffic through incident management areas shall be Type VI fluorescent pink retroreflective sheeting and shall comply with the MUTCD. Temporary traffic control signs for incident management shall be placed to notify motorists of upcoming incidents on the roadway, and shall be removed from public view once the incident has been managed. Physical properties shall comply with ASTM D 4956. Photometric properties shall be as follows.

(1) Retroreflectivity: Minimum Coefficients of Retroreflection shall be as specified in Table 1015-1.

Table 1015-1
Coefficients of Retroreflection for Fluorescent Pink Sheeting¹

Observation Angle, degrees	Entrance Angle, degrees	Fluorescent Pink
0.2	-4	100
0.2	+30	40
0.5	-4	40
0.5	+30	15

¹Minimum Coefficient of Retroreflection (R_A) ($\text{cd lx}^{-1}\text{m}^{-2}$)

(2) Color and Daytime Luminance: Color Chromaticity Coordinates and Daytime Luminance Factors shall be as specified in Table 1015-2.

Table 1015-2
Fluorescent Pink Color Specifications Limits (Daytime)

Chromaticity Coordinates (corner points) ¹								Luminance Factor, min.
1		2		3		4		Y%
x	y	x	y	x	y	x	y	25
0.450	0.270	0.590	0.350	0.644	0.290	0.536	0.230	

¹The four pairs of chromaticity coordinates measured with CIE 2° Standard Observer and 45/0 (0/45) geometry and CIE D65 Standard Illuminant.

(c) Adhesive Classes: The adhesive required for retroreflective sheeting shall be Class 1 (pressure sensitive) as specified in ASTM D 4956.

(d) Accelerated Weathering: Reflective sheeting, when processed, applied and cleaned in accordance with the manufacturer's recommendations shall perform in accordance with the accelerated weathering standards in Table 1015-3.

Table 1015-3
Accelerated Weathering Standards¹

Type	Retroreflectivity ²				Colorfastness ³	
	Orange/ Fluorescent Orange		All colors, except orange/Fluorescent Orange		Orange/ Fluorescent Orange	All colors, except orange/Fluorescent Orange
III	1 year	80 ⁴	3 years	80 ⁴	1 year	3 years
III (for drums)	1 year	80 ⁴	1 year	80 ⁴	1 year	1 year
VI	1/2 year	50 ⁵	1/2 year	50 ⁵	1/2 year	1/2 year
X	1 year	80 ⁶	3 years	80 ⁶	1 year	3 years

¹At an angle of 45° from the horizontal and facing south in accordance with ASTM G 7 at an approved test facility in Louisiana or South Florida.

²Percent retained retroreflectivity of referenced table after the outdoor test exposure time specified.

³Colors shall conform to the color specification limits of ASTM D 4956 after the outdoor test exposure time specified.

⁴ASTM D 4956, Table 8.

⁵ASTM D 4956, Table 13.

⁶ASTM D 4956, Table 4.

(e) Expected Sign Life Data and Performance: The sheeting manufacturer shall supply expected retroreflectivity service life curves for each of the following sign sheeting colors: white, green, blue, brown, red, and yellow. The service life curves shall be plots of the 95 percent expected life plotted on an x-y graph with life years on the x-axis and retroreflectivity on the y-axis. The expected life shall account for worst case installations, equivalent to an installation in South Louisiana with the sign facing to the South. The sheeting manufacturer shall also supply a table of expected life values taken from the service life curves for Revision Number 2 to the 2003 Edition of the MUTCD minimum reflectivity requirements published in the Federal Register on December 21, 2007. Reflective sheeting for signs, when processed, applied and cleaned in accordance with the manufacturer's recommendations shall perform outdoors in accordance with the performance standards in Table 1015-4.

Table 1015-4
 Reflective Sheeting Performance Standards

Type	Retroreflectivity ¹ --- Durability ²				Colorfastness ³
	Orange/ Fluorescent Orange		All colors, except orange/Fluorescent Orange		
III	3 years	80 ⁴	10 years	80 ⁴	3 years
X	3 years	80 ⁵	7years	80 ⁵	3 years

¹Percent retained retroreflectivity of referenced table after installation and the field exposure time specified.

²All sheeting shall maintain its structural integrity, adhesion and functionality after installation and the field exposure time specified.

³All colors shall conform to the color specification limits of ASTM D 4956 after installation and the field exposure time specified.

⁴ASTM D4956, Table 8.

⁵ASTM D 4956, Table 4.

(f) Temporary Signs, Barricades, Channelizing Devices, Drums and Cones: Reflective sheeting for temporary signs, barricades and channelizing devices, shall meet the requirements of ASTM D 4956, Type III except that temporary warning construction signs used on the mainline of freeways and expressways shall be fluorescent orange and meet the requirements of ASTM D 4956, Type X.

Reflective sheeting for vertical panels shall meet the requirements of ASTM D 4956, Type III.

Reflective sheeting for drums shall be a minimum of 6 inches (150 mm) wide and shall meet the requirements of ASTM D 4956, Type III, and the Supplementary Requirement S2 for Reboundable Sheeting as specified in ASTM D 4956. Reflective sheeting for traffic cone collars shall meet the requirements of ASTM D 4956, Type III or Type VI.

(g) Sheeting Guaranty. The contractor shall provide the Department with a guaranty from the sheeting manufacturer stating that if the retroreflective sheeting fails to comply with the performance requirements of this subsection, the sheeting manufacturer shall do the following:

Table 1015-5
 Manufacturer's Guaranty-Reflective Sheeting

Type	Manufacturer shall restore the sign face in its field location to its original effectiveness at no cost to the Department if failure occurs during the time period ¹ as specified below		Manufacturer shall replace the sheeting required to restore the sign face to its original effectiveness at no cost to the Department if failure occurs during the time period ¹ as specified below
	Orange/Fluorescent Orange	All colors, except orange/Fluorescent Orange	All colors, except orange/Fluorescent Orange
III	<3 years	<7 years	7-10 years
X	<3 years	<5 years	5-7 years

¹ From the date of sign installation.

Replacement sheeting for sign faces, material, and labor shall carry the unexpired guaranty of the sheeting for which it replaces.

The sign fabricator shall be responsible for dating all signs with the month and year of fabrication at the time of sign fabrication. This date shall constitute the start of the guaranty obligation period.

Subsection 1015.11 - Preformed Plastic Pavement Marking Tape (06/07). Pages 842 – 844.

Delete the contents of this subsection and substitute the following.

1015.11 PREFORMED PLASTIC PAVEMENT MARKING TAPE.

(a) General: Preformed plastic pavement marking tape shall be approved products listed on QPL 64 and shall comply with ASTM D4505 Retroreflectivity Level I or Level II, or DOTD Intersection Grade (as specified below), except as modified herein. The marking tape shall be Class 2 or 3. The type and color shall be in accordance with the plans and the MUTCD.

(b) Thickness: All preformed plastic pavement marking tape shall have a minimum overall thickness of 0.060 inches (1.5 mm) when tested without the adhesive.

(c) Friction Resistance: The surface of the Retroreflectivity Level II preformed plastic pavement marking tape shall provide a minimum frictional resistance value of 35 British Polish Number (BPN) when tested according to ASTM E303. The surface of the Retroreflectivity Level I and DOTD Intersection Grade preformed plastic pavement marking tape shall provide a minimum frictional resistance value of 45 BPN when tested according to ASTM E303. Values for the Retroreflectivity Level I material with a raised surface pattern as defined in ASTM D4505 are calculated by averaging values taken at downweb and at a 45 degrees angle from downweb.

(d) Retroreflective Requirements: The preformed plastic pavement marking tape shall have the minimum initial specific luminance values shown in Table 1015-7 when measured in accordance with ASTM D 4061.

Table 1015-7
Specific Luminance of Preformed Plastic Tape

Type	Observation Angle, degrees	Entrance Angle, degrees	Specific Luminance (mcd/sq m/lx)	
			White	Yellow
Retroreflectivity Level I	1.05	88.76	500	300
DOTD Intersection Grade	1.05	88.76	375	250
Retroreflectivity Level II	1.05	88.76	250	175

(e) Durability Requirements: The DOTD Intersection Grade preformed plastic pavement marking tape shall show no appreciable fading, lifting or shrinkage for a least 12 months after placement when placed in accordance with the manufacturer's recommended procedures on pavement surfaces having a daily traffic count not to exceed 15,000 ADT per lane.

The Retroreflectivity Level I preformed plastic pavement marking tape shall show no appreciable fading, lifting or shrinkage for a least 4 years after placement for longitudinal lines and at least 2 years after placement for symbols and legends.

The Retroreflectivity Level I preformed plastic pavement marking tape shall also retain the following reflectance values for the time period detailed in Table 1015-8.

Table 1015-8
Retained Specific Luminance for Retroreflectivity Level I
Preformed Plastic Pavement Marking Tape

Time	Observation Angle, degrees	Entrance Angle, degrees	Specific Luminance (mcd/sq m/lx)	
			White	Yellow
1 year	1.05	88.76	400	240
4 years (2 years for symbols and legend)	1.05	88.76	100	100

(f) Plastic Pavement Marking Tape Guaranty (DOTD Intersection Grade and Retroreflectivity Level I): If the plastic pavement marking tape fails to comply with the performance and durability requirements of this subsection within 12 months for DOTD Intersection Grade and 4 years for Retroreflectivity Level I, the manufacturer shall replace the plastic pavement marking material at no cost to the Department.

SECTION 1020 – TRAFFIC SIGNALS:

Subsection 1020.01 – Traffic Signal Heads (06/07), Pages 873 – 884.

Delete the contents of Heading (a), General Requirements and substitute the following.

Supplemental Specifications (May 2009)
Page 32 of 32

(a) General Requirements: Traffic signal sections, beacon sections and pedestrian signal sections shall be of the adjustable type. Materials and construction of each section shall be the same.

Signals shall be constructed for either 8 or 12-inch (200 mm or 300 mm) lens in accordance with the plans. Signal sections shall have three to five sections per face and beacon sections have only one section per face. Signal sections and associated brackets shall be finished inside and out with two coats of high grade dark olive green enamel, color number 14056 according to Federal Standard No. 595b with each coat independently baked. Visors shall be coated green on the outside and black on the inside. Edges shall be deburred and smooth with no sharp edges.

Subsection 1020.04 – Poles for Traffic Signal Systems (06/07), Pages 890 – 894.

Delete the sixth paragraph of Heading (a), Pedestal Support Signal Poles, and substitute the following.

Pedestals shall be finished with at least one coat of rustproofing primer, applied to a clean surface and one coat of dark olive green enamel, color number 14056 according to Federal Standard No. 595.

**LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS**

**SECTION 741
WATER DISTRIBUTION SYSTEM**

The 2006 Standard Specifications are amended to include this Section 741.

741.01 DESCRIPTION: This work consists of furnishing the necessary materials and installing, relocating and adjusting water distribution systems in accordance with these specifications and in conformity with the lines and grades shown on the plans or established by the engineer.

741.02 MATERIALS: A certificate of compliance from the manufacturer showing the chemical and physical properties of the materials used and conformance with the specifications will be required for each item.

(a) Cast Iron and Ductile Iron Pipe:

(1) Cast Iron Pipe: Cast iron pipe shall be made of grey cast iron and shall conform to ANSI A 21.6 (centrifugally cast in metal molds) or A 21.8 (centrifugally cast in sand lined molds). Iron in the pipe shall have a bursting tensile strength of at least 21,000 psi (145 MPa) and the pipe shall have a ring modulus of rupture of at least 45,000 psi (310 MPa).

(2) Ductile Iron Pipe: Ductile iron pipe shall consist of ductile cast iron and shall conform to ANSI A 21.51 (centrifugally cast in metal or sand lined molds).

(3) Fittings: Fittings for cast iron or ductile iron pipe shall conform to ANSI A 21.10.

(4) Coating and Lining of Pipe: Cast iron and ductile iron pipe and fittings shall be asphalt or vinyl coated outside, as specified, and cement lined and seal coated inside in accordance with ANSI A 21.4.

(5) Joints: Pipe joints shall conform to ANSI A 21.11 with the following criteria used for joint selection.

- a. Mechanical Joint (Type III) with alloy steel bolts and nuts.
- b. Boltless single gasket push-on joint.
- c. Submarine, flexible, ball and socket joint.
- d. Flanged joint.

Pipe shall be installed with joint types (a) or (b) for mains under normal service conditions, joint type (c) for stream or canal crossings and when specified, joint type (d) for above ground installations such as pumps.

(b) Gate Valves and Valve Boxes:

(1) Valves shall be non-rising stem, iron body, bronze mounted, double-disk gate valves conforming to AWWA C 500. Valves shall have mechanical joint ends except that valves used with 2 inches (50 mm) or less diameter pipe, or galvanized iron pipe, shall have threaded ends. Valves shall open counterclockwise and shall be operated by nut method. Operating nuts shall conform to that used by the utility system.

(2) Valve boxes shall be approved cast iron, 2-piece, heavy roadway type. Valve boxes for 12 inches (300 mm) or larger valves shall be of the 3-piece type with oval base. The term "water" shall be cast on each valve box cover.

(c) Tapping Sleeves and Valves: Tapping sleeves shall be the split- sleeve, mechanical joint type. Gate valve connections shall be mechanical joint. Sleeves shall meet the requirements for cast iron fittings except the cement lining will not be required. Minimum working pressure shall be that specified for the system.

(d) Fire Hydrants: Fire hydrants shall conform to AWWA Designation: C 502 for 3-way type hydrants with working pressure of 150 psi (1.0 MPa). Hydrants shall be compression type and inlet connections shall be mechanical joint bell. Two 2 1/2 inches (65 mm) hose nozzles and one 4 1/2 inches (115 mm) pumper nozzle shall be provided; hose connections shall have National Standard threads. Hydrants shall have bronze seal rings, automatic drain openings and O-ring seals. Minimum valve openings of 4 inches shall be provided. Hydrants shall contain a breakaway feature at ground level consisting of breakaway bolts or flange and breakaway coupling on the rod. Main valve and valve seat shall be replaceable without digging up the hydrant. The hydrant exterior shall be painted with approved enamel and shall be repainted after installation (color: yellow).

(e) Plastic Pipe: Plastic pipe and tubing shall be polyvinyl chloride or polyethylene pipe and tubing.

(1) Polyvinyl chloride (PVC) pipe shall conform to ASTM D 2241 and be pressure rated at 200 psi (1.3 MPa) minimum. The pipe shall be made from polyvinyl chloride compounds conforming to Class 12454B (Type 1, Grade 1), ASTM D 1784.

(2) Polyethylene (PE) pipe and tubing shall conform to ASTM D 2239 (pipe) and D 2737 (tubing). Pipe or tubing shall be rated for use with water at 73.4°F (23°C) at a hydrostatic design stress of 630 psi (4.3 MPa). Pipe or tubing shall be made from polyethylene plastics conforming to Type III, Grade 3, ASTM D 1248.

(3) When specified, Schedule 40 PVC shall be in accordance with ASTM D 1785, Schedule 40, PVC 1120.

(4) Plastic pipe and fittings must bear the seal or "NSF" mark of the National Sanitation Foundation or other approved marking indicating approval for use in transporting potable water.

(5) Welding Solvent and Solvent Thinner shall conform to ASTM D 2564.

(f) Galvanized Steel Pipe: These pipes and fittings shall be galvanized steel seamless pipe conforming to ASTM A 53 (A 53M), standard weight. Fittings shall be malleable iron conforming to ANSI B 16.3 except the nipples and couplings shall be the same material as the pipe. Fittings shall be galvanized in accordance with ASTM A 53 (A 53M).

(g) Copper Pipe or Tubing: This pipe shall conform to ASTM B 88, Type K. Copper fittings shall be of the cast pattern or wrought pattern. Fittings for rigid copper pipe shall be of the solder joint type. Fittings for conceded soft draw pipe may be the flared mechanical type. Unions shall be the ground joint type.

(h) Detection Wire for Plastic Pipe: An approved electrically conductive insulated wire or tape shall be installed directly over and on the center of the plastic pipe for its entire length within highway right-of-way to facilitate locating of line with an electronic pipe locator. Wire or tape must be connected to all fixtures and appurtenances.

741.03 CONSTRUCTION REQUIREMENTS:

(a) General:

(1) Handling: Pipe, fittings and other materials shall be carefully handled to prevent breakage or damage, especially to the cement mortar lining in pipe and fittings.

(2) Existing Underground Utilities and Obstructions: All water lines, gas lines, telephone conduits, drainage structures, etc. shall be located and protected by the contractor during construction.

(b) Trench Excavation:

(1) Excavation: Excavation shall conform to Subsections 701.03 and 701.04, and the following requirements.

a. Protection of Excavation: Sheeting, shoring and hand excavation shall be used as necessary for protection of the work. Sheeting shall be withdrawn as backfilling is being done, except where the engineer directs that the sheeting and shoring be left in place, or where the engineer permits the sheeting to be left in place. The contractor shall cut off any sheeting left in place at least 18 inches (450 mm) below finished grade. Sheeting and bracing will not be paid for directly.

b. Trench Depth: Minimum bury (depth from grade to top of pipe) under pavement or surfacing shall be 4 feet (1.2 m). Minimum bury under ditches and in other non-paved areas shall be 2 feet (0.6 m).

c. Bell Holes: Bell holes of ample depth and width shall be excavated in pipe trenches at each joint location to permit the joint to be properly made and the pipe barrel to rest firmly on the trench bottom.

(2) Under Pavement:

a. Removing Pavement: The contractor shall remove existing pavement as necessary for trench excavation. Pavement shall be cut back from the top edges of trenches at least 24 inches (0.6 m) on each side of the trench. The requirements of Sections 510 and 602 shall be followed for removing and replacing pavement except that no separate payment will be made for this work.

b. Jacking and Boring: The contractor may elect to jack or bore pipe under existing pavement where practical; however, separate payment for jacked or bored pipe will only be made when jacking or boring of pipe is specified. Jacked or bored pipe shall be installed in accordance with Section 728.

(c) Connection to Existing Mains: Connection to existing mains shall be made with appropriate fittings as shown on the plans or as directed. When it is necessary to make such connections under pressure (i.e., when normal water service must be maintained) a tapping sleeve and valve shall be used. The contractor shall furnish the valve tapping machine and other equipment required.

(1) Location: The contractor shall, before opening pipe line trenches, locate the points where connections are to be made to existing pipe lines and shall uncover as necessary for the engineer to prescribe the types of connections and fittings to be installed.

(2) Interruption of Service: Connections to existing pipe lines shall be made at such times and in such manner as will meet operating requirements. No cut shall be made in existing lines until permission has been obtained as to time and manner of making cuts and connections.

(d) Laying Water Mains and Appurtenances:

(1) Sequence of Work: Excavation, cleaning, laying, jointing and backfilling shall be kept up as closely as possible. Pipe shall not be left in the trench overnight without completely jointing and capping. The contractor shall backfill and compact the trench as soon as possible after laying, jointing and testing is complete. Each day at the close of work, and when laying is not in progress, the exposed end of the pipe line in the trench shall be closed with an approved barrier of wood or metal. If it is necessary to cover the end of an uncompleted pipe line with backfill, the end of the pipe shall be closed using a satisfactory cap or plug.

(2) Alignment and Gradient: Pipe line alignment and gradient shall be straight, or shall be deflected to follow true curves as nearly as practical. Deflection of pipe lines shall be within the allowable laying deflection angle, both horizontal and vertical.

(3) Installation:

a. Connections: Connections which are made inside roadway shoulders, or curbs and gutters, shall be made with flexible joints.

b. Cutting: Where pipe or special castings are required to be cut, cutting shall be done using pipe cutters.

c. Gate Valves: Gate valves shall be installed and jointed as specified above for water mains. Installation of gate valves shall include valve boxes, where required.

d. Fire hydrants: Hydrants shall be installed and jointed as specified above for water mains. Installation of hydrants shall include vertical extension sections if required, pipe straps, concrete blocking, aggregate drain and backfill.

e. Concrete Blocking: Concrete blocking shall be Class R concrete conforming to Section 901 and shall be formed and poured at the backs of fittings, including elbows, tees, pipe plugs, fire hydrants and other locations shown on the plans or directed by the engineer.

f. Backfilling: Backfilling shall conform to Subsection 701.08 and these requirements.

When testing for leaks in open trenches, backfilling shall not be done until testing has been completed and leaks eliminated.

Where adjacent pavements are to be retained, pavement removed for pipe line trenches shall be replaced in kind or when approved, with equal or better material. After backfilling, the contractor shall maintain a satisfactory riding surface until repaving is completed. No separate payment will be made for replaced pavement.

g. Testing and Disinfection:

1. Testing: When a section of pipe is approved for testing, the contractor shall furnish all materials, equipment and labor to properly carry out this operation. This shall include a test pump and means of accurate measurement of water necessary to maintain required pressure during testing. The contractor shall furnish, install and remove any temporary bulkheads, flanges, plugs and corporation stops at high points in pipe lines and at the test pump, as necessary.

A. Sequence of Testing: When conditions permit, pipe lines shall be tested before the trench is backfilled and before service lines are installed; however, if high pressure testing must be done after service lines are in place, they shall be shut off at the corporation stops.

After necessary joints, bulkheads, etc. have been installed, corporation stops, if no other means can be provided, shall be placed in the high points of the pipe line and at the pump as required, and the pipe blown free from air according to accepted procedure.

B. Test Pressure: Test pressure shall be 50 psi (0.3 MPa) higher than the designated class pressure of pipe and fittings. Leakage shall not exceed 15 gallons per inch (1.4 L/mm) of pipe diameter per mile (km) per 24 hours. The minimum test period shall be 2 hours. However, if additional testing is required the contractor shall perform the procedure at his expense. When service lines cannot be isolated (i.e., shut off from the section to be tested), or other conditions exist where pressure testing as described above may cause damage, the line may be tested under normal operating pressure when approved. This work shall be done in open trenches, where possible, and testing repeated until leaks are eliminated.

C. Leaks and Defective Materials or Workmanship: Joints which leak shall be remade. Cracked, broken or defective materials shall be replaced. Defective workmanship shall be corrected. After the above conditions have been corrected, the line shall be retested as described above until the line passes the requirements. The contractor shall receive no additional compensation for the corrections or retesting.

2. Disinfection: Pipe lines and appurtenances, both existing and new which are the responsibility of the contractor, shall be disinfected before being placed in service. The disinfection process may be done in conjunction with the pressure test and shall be in accordance with AWWA C 601 and these requirements.

A solution of calcium hypochlorite or sodium hypochlorite (such as HTH, Perchloron, Chlorox, etc.) liquid chlorine or other approved disinfectant shall be used to obtain a solution of at least 50 ppm of available chlorine throughout the pipe system. No chlorine shall be applied to pipe as lines are being laid.

For this work, the contractor shall furnish suitable corporation stops, plugs or caps for the pipe, injection pumps, pipe connections and other equipment, and all labor required, at no additional cost to the Department.

While disinfectant is being applied to any section of the system, the water shall be allowed to escape at all extremities of this section until an orthotolidine test shows a deep orange color. The disinfectant shall be allowed to remain in the pipe at least 6 hours and tests shall be made to determine that a chlorine residual of at least 5 ppm remains. If there is not sufficient residual chlorine, disinfection shall be repeated. After disinfection, lines shall be thoroughly flushed to remove the chlorine. If bacteriological tests indicate that the lines are not free of coliform organisms, the disinfection procedure shall be repeated on that part of the system until proven to be free of contamination.

Disinfection shall be made in the presence of the engineer. The contractor shall notify the engineer at least 48 hours prior to the time lines are to be disinfected. The contractor shall furnish taps, corporation stops, tubing and faucets, and furnish labor to obtain samples of water from disinfected lines. These shall be collected and submitted to a biological laboratory of the State Board of Health. Copies of laboratory reports shall be submitted to the engineer. Disinfection shall be considered acceptable when reports indicate lines to be free of contamination. Lines shall be disinfected as soon after completion of testing as possible.

When tests are completed, test risers shall be removed and corporation stops plugged with an approved brass plug.

(e) Laying Service Lines and Appurtenances: Except as modified below, construction and installation of service lines shall conform to the requirements for laying water mains. Service lines shall include complete installation of the new pipe from the water main to the final location of the meter, or to such points as directed to connect with existing or future service lines and abutting property. Installation of service line pipe shall include necessary connections, including unions, valves, fittings, corporation stops, goosenecks where permitted, and curb stops.

(1) Excavation and Backfill:

a. Excavation: Excavation shall be done as specified elsewhere herein.

b. Backfill: Backfilling shall be done as specified herein after leakage test has been made under normal operation pressure in open trenches and leaks eliminated.

(2) Laying and Jointing: Jointing of copper pipe, galvanized steel pipe and plastic pipe shall be in accordance with standard practice for jointing water pipe and approved installation methods. Plastic pipe shall be placed in the trench to allow at least 1 percent additional length of pipe for thermal connection, and selected backfill material shall be placed and compacted to 6 inches above pipe before proceeding with normal backfill operations.

(f) Relocations, Adjustments and Removals:

(1) Water Valves, including valve boxes and fire hydrants, shall be relocated, adjusted to grade or removed as shown on the plans or as designated. The contractor shall protect all parts during the removing and relocating operation and shall replace all items lost or damaged at his expense. All lead or composition joints shall be melted out and each joint disconnected before being removed from the trench.

Relocated gate valves or fire hydrants shall be installed as specified for new gate valves or fire hydrants. Concrete blocking will be required for fire hydrants. Leakage tests shall be performed as specified above. Backfilling shall be done as specified herein. Concrete blocking and any additional pipe required in resetting the gate valve or fire hydrant at its new location will be paid for separately. Valve boxes, when they exist, shall be considered to be a part of the valve assembly and shall be removed with the valve.

(2) Existing water meters and boxes shall be relocated as shown on the plans or as designated. Relocation shall include removing the existing meter, meter box, all required pipe, unions and appurtenances, storage, protection where necessary, and reinstalling the meter, meter box and curb stop in the existing service line as directed. The contractor, with the engineer, shall inspect each meter before its removal to determine its condition. If a meter is defective, the contractor will be furnished a replacement meter for the installation.

(3) Existing water service lines shall be adjusted to grade, by excavating for, and lowering or raising the existing service lines and backfilling at the same location, as shown on the plans or directed. Any new materials or fittings required for the adjustment shall be furnished by the contractor without additional compensation. He shall also make any required changes in the connection at the main which are the result of this work. All leaks and damage caused by the contractor's operations shall be repaired at his expense. If a water meter is to be retained at the same location in an existing service line that is to be adjusted, the meter and box shall also be adjusted to proper grade. No additional compensation will be allowed for this adjustment.

(4) Existing water meter and water valve boxes shall be lowered or raised to the grade established on the plans or by the engineer.

(5) Existing house connections shall be adjusted as required. New pipe and fittings required to adjust house connections shall be equal in quality to that of the existing installation and meet requirements of the utility and code.

741.04 MEASUREMENT:

(a) Water Mains: Water mains will be measured by the linear foot (lin m) along the center, parallel to the slope of the pipe, from end to end of each installation through all fittings.

(b) Fittings: Pipe fittings will be considered subsidiary to the water line in which they are used.

(c) Gate valves, including boxes when required, will be measured by the number of each size installed.

(d) Tapping sleeve and valve assembly will be measured by the number of each size installed.

(e) Fire hydrants will be measured by the number of each installed.

(f) Service Lines: Service lines will be measured by the linear foot (lin m) from end to end, and from center of lines to ends of branches, including valves and fittings.

(g) Relocating Fire Hydrants, Water Valves and Water Meters: Existing fire hydrants, water valves and water meters will be measured by the number of each relocated, including relocation of boxes for such valves and meters.

(h) Adjusting Meter Boxes and Valve Boxes: Existing meter boxes and valve boxes adjusted to grade in their original locations will be measured by the number adjusted.

(i) Removal of Water Valves and Fire Hydrants: Existing water valves, including boxes when necessary, and fire hydrants will be measured by the number of each removed.

(j) Excavation and Backfill: Excavation and backfill will not be measured for payment.

(k) Concrete Blocking: Concrete blocking will be measured by the cubic yard (cu m) of concrete used.

(l) Adjusting Water House Connections: This item will be measured by the number of house connections adjusted.

(m) Adjusting Service Lines to Grade: This item will be measured in linear feet (lin m) of service line pipe lowered or raised, including valves, fittings, meters, boxes and other appurtenances. Measurement will be made from end to end of adjusted service line.

(n) Incidentals: Pavement removed and replaced, including sawing, testing, disinfection and detection wire for plastic pipe, will not be measured for payment.

(o) Casing will be measured by the linear foot (lin m) along the center, parallel to the slope of the casing.

(p) Butterfly valves, including boxes when required, will be measured by the number of each installed.

(q) Double strap saddles will be measured by the number of each installed.

741.05 PAYMENT:

(a) Water main pipe will be paid for per linear foot (lin m) for each size of pipe installed, which includes fittings, excavation, backfilling, removal and replacement of pavement, testing, sterilizing, and laying pipe in casing when required.

(b) Gate valves will be paid for per each, which includes box if required, and joint connections.

(c) Tapping sleeve and valve assemblies will be paid for per each, which includes joint connections.

(d) Fire hydrants will be paid for per each, which includes vertical extensions, joint connections, pipe straps and stone drain.

(e) Service line pipe will be paid for per linear foot (lin m), which includes excavation, backfilling, removal and replacement of pavement, testing, sterilizing, corporation and curb stops, goosenecks where required, fittings, jointing, connecting to the main, and laying pipe in casing when required.

(f) Relocating fire hydrant will be paid for per each, which includes crushed stone drain.

(g) Relocating water valve including box will be paid for per each, which includes excavation and backfill.

(h) Relocating water meter including box will be paid for per each set, which includes excavation and backfill.

(i) Adjusting water house connections will be paid for per each, which includes necessary adjustment of service lines not exceeding 20 linear feet (6.1 lin m) per house connection, and required new pipe and fittings.

(j) Adjusting water service lines in excess of 20 linear feet (6.1 lin m) per house connection will be paid for per linear foot (lin m) of adjusted service line, which includes required new pipe and fittings.

(k) Adjusting meter boxes and valve boxes to grade will be paid for per each.

(l) Removal of water valves will be paid for per each, which includes valve box.

(m) Removal of fire hydrants will be paid for per each.

(n) Concrete blocking will be paid for per cubic yard (cu m).

(o) Casing will be paid for per linear foot (lin m), which includes excavation, backfilling, and removal and replacement of pavement.

(p) Butterfly valves will be paid for per each size, which includes box if required, and joint connections.

(q) Double strap saddles will be paid for per each, which includes joint connections.

(r) Payment will be made at the contract unit prices under:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
741-01	Water Main (Size & Type)	Linear Foot (Lin m)
741-02	Gate Valve (Size)	Each
741-03	Tapping Sleeve and Valve Assembly (Size)	Each
741-04	Fire Hydrant	Each
741-05	Water Service Line (Size & Type)	Linear Foot (Lin m)
741-06	Relocating Fire Hydrant	Each
741-07	Relocating Water Valve	Each
741-08	Relocating Water Meter	Each
741-09	Adjusting Water House Connections	Each
741-10	Adjusting Water Service Lines	Linear Foot (Lin m)
741-11	Adjusting Water Valve and Meter Box	Each
741-12	Removing Water Valve Including Box	Each
741-13	Removing Fire Hydrant	Each
741-14	Concrete Blocking	Cubic Yard (Cu m)
741-15	Casing (Size & Type)	Linear Foot (Lin m)
741-16	Butterfly Valve (Size)	Each
741-17	Double Strap Saddle (Size)	Each

**LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS**

FEMALE AND MINORITY PARTICIPATION IN CONSTRUCTION

The following notice shall be included in, and shall be a part of, all solicitations for offers and bids on all federal and federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in geographical areas designated by the director of OFCCP. Execution of the contract by the successful bidder and any subsequent subcontracts will be considered the contractor's and subcontractor's commitment to the EEO provisions contained in this notice.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

AREA	PARISH OR COUNTY	GOAL (%)
FEMALE PARTICIPATION		
-	All Covered Areas	6.9
MINORITY PARTICIPATION (UNDER NEW ORLEANS PLAN)		
-	* See Note Below	20 to 23
MINORITY PARTICIPATION (NOT UNDER NEW ORLEANS PLAN)		
1	Jefferson LA, Orleans LA, St. Bernard LA, St. Tammany LA	31.0
2	Assumption LA, Lafourche LA, Plaquemines LA, St. Charles LA, St. James LA, St. John the Baptist LA, Tangipahoa LA, Terrebonne LA, Washington LA, Forrest MS, Lamar MS, Marion MS, Pearl River MS, Perry MS, Pike MS, Walthall MS	27.7
3	Ascension LA, East Baton Rouge LA, Livingston LA, West Baton Rouge, LA	26.1
4	Concordia LA, East Feliciana LA, Iberville, LA, Pointe Coupee LA, St. Helena LA, West Feliciana LA, Adams MS, Amite MS, Wilkinson, MS	30.4
5	Lafayette LA	20.6
6	Acadia LA, Evangeline LA, Iberia LA, St. Landry LA, St. Martin LA, St. Mary LA, Vermillion LA	24.1
7	Calcasieu LA	19.3
8	Allen LA, Beauregard LA, Cameron LA, Jefferson Davis LA, Vernon LA	17.8
9	Grant LA, Rapides LA	25.7
10	Avoyelles LA, Bienville LA, Bossier LA, Caddo LA, Claiborne LA, DeSoto LA, Natchitoches LA, Red River LA, Sabine LA, Webster LA, Winn LA	29.3
11	Ouachita LA	22.8
12	Caldwell LA, Catahoula LA, East Carroll LA, Franklin LA, Jackson LA, LaSalle LA, Lincoln LA, Madison LA, Morehouse LA, Richland LA, Tensas LA, Union LA, West Carroll LA,	27.9

*These goals apply only to those contractors signatory to the New Orleans Plan and only with respect to those trades which have unions participating in said Plan. The New Orleans Plan Covered Area is as follows: The parishes of Orleans, Jefferson, St. Bernard, St. Tammany, St. Charles, St. John the Baptist, Plaquemines, Washington, Terrebonne, Tangipahoa (that area east of the Illinois Central Railroad), Livingston (that area southeast of the line from a point off the Livingston and Tangipahoa Parish line adjacent from New Orleans and Baton Rouge), St. James (that area southeast of a line drawn from the Town of Gramercy to the point of intersection of St. James, Lafourche and Assumption Parishes), and Lafourche.

These goals are applicable to all the contractor's construction work (whether or not it is federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor is also subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor, or from project to project, for the purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Regional Administrator of the Office of Federal Contract Compliance Programs (555 Griffin Square Building, Dallas, TX 75202) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and geographical area in which the contract is to be performed.

4. As used in this Notice and in the contract, the "covered area" is that area shown in the foregoing table in which the project is located.

The following Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) shall be included in, and shall be a part of, all solicitations for offers and bids on all federal and federally assisted construction contracts or subcontracts in excess of \$10,000. Execution of the contract by the successful bidder and any

subsequent subcontracts will be considered the contractor's and subcontractor's commitment to the EEO provisions contained in these Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246).

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246)

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941.
- d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. If the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, he shall include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation.

3. If the contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved Plan is required to comply with his obligations under the EEO clause, and to make good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractor or subcontractors toward a goal in an

approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals.

4. The contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in geographical areas where they do not have a federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any OFCCP office or from federal procurement contracting officers. The contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the contractor has a collective bargaining agreement, to refer either minorities or women, shall excuse the contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.

7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications will be based on his effort to achieve maximum results from its actions. The contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign 2 or more women to each construction project. The contractor shall ensure that all foremen, superintendents and other on-site supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the contractor has taken.
- d. Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a minority person or woman set by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting his EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as superintendent, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the contractor's EEO policy externally by including it in ny advertising in the news media, including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than 1 month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above describing the openings, screening procedures and tests to be used in the selection process.

- j. Encourage present minority and female employees to recruit other minority persons and women, and where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR 60-3.
- l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling its obligations under 7a through 7p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet his goals and timetables and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.

9. A goal for minorities and a separate goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the contractor may be in violation of the Executive Order if a group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally, the contractor may be in violation of the Executive Order if a minority group of women is underutilized).

10. The contractor shall not use the goals or affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.

11. The contractor shall not enter into a subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246. 12. The contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The contractor, in fulfilling his obligations under these specifications, shall implement specific affirmative actions steps, at least as extensive as the standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors will not be required to maintain separate records.

15. Nothing herein shall be construed as a limitation on the application of other laws which establish different standards of compliance or on the application of requirements for hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

16. In addition to the reporting requirements set forth elsewhere in this contract, the contractor and subcontractors holding subcontracts (not including material suppliers) in excess of \$10,000 shall submit for every month of July during which work is performed, employment data as contained under Form FHWA-1391 in accordance with instructions included thereon.

**LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS**

NEW ORLEANS PLAN

Each bidder, contractor or subcontractor (hereinafter called the contractor) must fully comply with these bid conditions as to each construction trade intended to be used on this construction contract and all other construction work (both federal and nonfederal) in New Orleans Plan Area during the performance of this contract or subcontract. The contractor commits to the minority and female employment utilization goals set forth herein and all other requirements, terms and conditions expressed herein by submitting a properly signed bid.

The contractor shall appoint a company executive to assume the responsibility for implementation of the requirements, terms and conditions of these bid conditions.

These specifications implementing the New Orleans Plan for employment of minorities and females have been imposed by the U. S. Department of Labor by order on September 8, 1971, as amended, for all nonexempt federal and federally assisted construction contracts to be awarded in the area of jurisdiction of the Southeast Louisiana Building and Construction Trades Council in the City of New Orleans and Southeast Louisiana. This area consists of the parishes of Orleans, Jefferson, St. Bernard, St. Tammany, St. Charles, St. John the Baptist, Plaquemines, Washington, Terrebonne, Tangipahoa (that area east of the Illinois Central Railroad), Livingston (that area southeast of the line from a point off the Livingston and Tangipahoa Parish line adjacent from New Orleans and Baton Rouge), St. James (that area southeast of a line drawn from the Town of Gramercy to the point of intersection of St. James, Lafourche and Assumption Parishes), and Lafourche.

The provisions of these bid conditions apply to contractors which are party to collective bargaining agreements with labor organizations which together have agreed to the New Orleans Area Construction Program (hereinafter called the New Orleans Plan) for equal opportunity and have jointly made a commitment to goals of minority and female utilization. The New Orleans Plan is a voluntary agreement between (1) Southeast Louisiana Building and Construction Trades Council; (2) contractors and subcontractors who are signatory to the New Orleans Plan; (3) the Urban League of Greater New Orleans and representatives of the minority community; and (4) the City of New Orleans. The New Orleans Plan, together with all implementing agreements that have been and may hereafter be developed pursuant thereto, are incorporated herein by reference.

The requirements set forth herein shall constitute the specific affirmative action requirements for activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions.

The contractor and all subcontractors holding contracts in excess of \$10,000 shall comply with the following minimum requirement activities of equal employment opportunity. The contractor shall include these requirements in every subcontract in excess of \$10,000 with such modification of language as necessary to make them binding on the subcontractor.

Each contractor and subcontractor shall submit a monthly employment utilization report, Standard Form 257, covering the contractor's entire work force employed on all contracts (both federal and nonfederal) held in the New Orleans Area. In addition, a list of the federal and nonfederal contracts which are covered by the report shall be furnished. The report shall be submitted to the engineer no later than the 10th day following the end of the month being reported. The report shall end on the next to the last Saturday in the month being reported and shall reflect all hours worked between this date and the close out date in the preceding month. Copies of all payrolls and personnel data shall be retained for 3 years after final acceptance of the project. These records and documents, or copies thereof, shall be made available at reasonable times and places for inspection by an authorized representative of the State or Federal Government and shall be submitted upon request with any other compliance information which such representative may require.

In addition to the reporting requirements set forth above, the contractor and the subcontractors holding subcontracts, not including material suppliers, in excess of \$10,000 shall submit for every month of July during which work is performed, employment data as contained under Form FHWA-1391, and in accordance with the instructions included thereon.

A contractor may be in compliance with these bid conditions by its participation in the New Orleans Plan and applicable provisions contained in the "Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)" and Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246).

**LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS
ON-THE-JOB TRAINING**

The Louisiana Department of Transportation and Development (LADOTD) has partnered with the Louisiana Associated General Contractors (LAGC) to ensure that on-the-job training is provided on a voluntary basis by contractors performing work on LADOTD's federally assisted construction projects.

The LAGC has committed that its member contractors will enroll a minimum of 15 trainees statewide during the period July 1 through June 30 annually. It is anticipated that this annual training goal will be increased in future years as participation in the program grows.

The LADOTD on-the-job training program will be monitored by the Compliance Programs Section. At all times it will be the responsibility of the contractor to comply with the Job Training Supplemental Specifications. LAGC will provide support to their member contractors in the area of on-the-job training as they would in any contractual activity. LAGC has committed to assisting contractors in areas such as recruitment, record keeping, graduation certificates, and ongoing encouragement of contractors to participate in the training program. LAGC has expressed their willingness to work with LADOTD and FHWA in making the contracting industry as strong as possible in all areas, including on-the-job training.

Non-LAGC members are encouraged to participate in the LADOTD on-the-job training program. No aspect of the LADOTD/LAGC partnership is designed to eliminate the right of any non-LAGC member to participate in the training program described in these specifications. If any non-LAGC member does not utilize a previously approved training program, he/she is directed to develop and submit a training program to LADOTD for approval by LADOTD and FHWA.

Although training under this contract is not limited to minorities and females, contractors should be aware that one of the objectives of the training program is to increase the participation and skills of minorities and females in highway construction. Contractors must exert good faith efforts to comply with the Equal Employment Opportunity contract requirements governing recruitment and upgrading when seeking to fill vacancies in the work force and select candidates for the training program. Adequate documentation of good faith efforts should be maintained and submitted to the Compliance Programs Section Training Program Manager (TPM) when requested.

These supplemental specifications are in implementation of 23 USC 140(a). Training under this contract shall be optional to the successful bidder, provided the item for which training is requested is less than 70 percent complete. If the contractor elects to provide training under the

07/08

On-The-Job Training

Page 2 of 4

contract as established in these specifications, he may submit a written request to the project engineer with a copy to the Construction Section. A plan change will be prepared to incorporate a pay item using the trainee hours stated in the Special Provisions elsewhere herein. Training will only be reimbursed after the approval of this plan change.

It is intended that training under these supplemental specifications be in crafts directly related to highway construction. Therefore, training in classifications such as clerk-typist, secretary, bookkeeper, fireman, office engineer, estimator, timekeeper, and unskilled or common laborer will not be approved for participation under these supplemental specifications.

No employee shall be employed as a trainee in any classification in which he/she has successfully completed a training course leading to journey person status or in which he/she has been employed as a journey person. The contractor shall satisfy this requirement by completing the Contractor's Trainee Enrollment & Interview Form for each potential trainee. The completed form shall be electronically submitted to the TPM for review and approval.

The contractor will be reimbursed \$3.00 per hour of training provided in accordance with an approved training program. Reimbursement will be made for training hours in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other sources do not specifically prohibit the contractor from receiving other reimbursement. The contractor will be reimbursed for the number of trainee hours actually trained on the project in accordance with these supplemental specifications.

The contractor will be credited for each trainee employed on the project that is currently enrolled or becomes enrolled in an approved training program and will be reimbursed for such trainees as provided in these supplemental specifications.

The minimum length and type of training for each classification selected by the contractor will be established in the training program approved by the Department, Federal Highway Administration (FHWA), and/or Office of Federal Contract Compliance Programs (OFCCP). The Department, FHWA, and/or OFCCP will approve a program if it is reasonably calculated to meet the Equal Employment Opportunity obligations of the contractor and to qualify the average trainee for journey person status in the classification concerned by the end of the training period. Apprenticeship programs registered with the U. S. Department of Labor, Bureau of Apprenticeship and Training or with a state apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U. S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training will also be considered acceptable if it is being administered in a manner consistent with the equal employment obligations of federal-aid highway construction contracts.

It is normally expected that a trainee will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his/her work classification or until he/she has completed the training program.

Enrollment of trainees in excess of the required number will be permitted, with approval, to allow the contractor to maintain the required continuous effort to complete the training of individual trainees.

Trainees will be paid at least 60 percent of the appropriate minimum journey person's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent of the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by these supplemental specifications.

The contractor, prior to the start of training, shall provide written notice to each person to be trained under these supplemental specifications of that person's designation as a trainee, the training program and classification under which training will be provided, the length of the training program, and the hourly wage rate to be paid to the trainee. This requirement shall be fulfilled by use of the Contractor's Trainee Enrollment & Interview Form.

Upon graduation, the contractor shall issue the trainee a certification showing the type and length of training satisfactorily completed along with a permanent photo identification card designating the bearer as a graduate journey person of the appropriate training program.

The contractor shall electronically submit the Contractor's Trainee Enrollment & Interview Form for each employee on the project who is enrolled as a trainee in an approved training program or apprenticeship program. The trainee enrollments shall be submitted to the TPM within the first payroll period in which each trainee or apprentice is assigned to the project.

In order to collect the \$3.00 per hour reimbursement for training, the contractor shall electronically submit to the project engineer's office each week that training is conducted on the project the Contractor's OJT Weekly Reporting Form along with the payroll. For projects where weekly payroll submission is not required, the Contractor's OJT Weekly Reporting Form shall be submitted to the project engineer's office.

At anytime during the life of the project, provided that the item for which training is requested is less than 70 percent complete, a subcontractor may elect to train. The subcontractor should follow the steps described above in order to participate in the on-the-job training program. If the

07/08

On-The-Job Training

Page 4 of 4

subcontractor does not utilize a previously approved training program, he/she is directed to develop and submit a training program to the TPM for approval by LADOTD and FHWA.

Contractors are to train according to their work force needs and as training opportunities exist on a project. If a trainee graduates from a training classification, training opportunities no longer exist in the approved classification, or a contractor's work force needs change, a trainee could be enrolled in a different classification. The Contractor's OJT Change Form is to be used when these circumstances necessitate enrolling a current trainee or a graduate in a new classification. Multiple enrollments of an individual should not be used to diminish the objectives of these specifications, but to enhance the trainee's career growth, benefit the contractor's operations, and improve the contracting industry overall.

All required forms can be found on the LADOTD website on the Compliance Programs page and the Construction Letting Information page under Doing Business with DOTD. Instructions for completing any required form may be obtained from the TPM.

It is the goal of the LADOTD/LAGC partnership to maintain a voluntary on-the-job training program, but revisions to the program may be deemed necessary should participation fall below acceptable levels.

**LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT**

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

	<i>Page</i>
I. General.....	1
II. Nondiscrimination	1
III. Nonsegregated Facilities.....	3
IV. Payment of Predetermined Minimum Wage.....	3
V. Statements and Payrolls.....	6
VI. Record of Materials, Supplies, and Labor.....	7
VII. Subletting or Assigning the Contract	7
VIII. Safety: Accident Prevention.....	7
IX. False Statements Concerning Highway Projects	7
X. Implementation of Clean Air Act and Federal Water Pollution Control Act.....	8
XI. Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion	8
XII. Certification Regarding Use of Contract Funds for Lobbying	10

ATTACHMENTS

A. Employment Preference for Appalachian Contracts (included in Appalachian contracts only)

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4, and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 *et seq.*) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will

implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any

account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional

classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State

apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee

program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under an approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than

one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph

3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each apprentice, trainee, and helper) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all

may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and

similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

Notice to all Personnel engaged on Federal-Aid Highway Projects

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 *et seq.*, as amended by Pub.L. 92-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 *et seq.*, as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, INELIGIBILITY, AND SUSPENSION, VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions: (Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered

transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Covered Transactions:** (Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

**Certification Regarding Debarment, Suspension,
Ineligibility and Voluntary Exclusion--Lower Tier
Covered Transactions:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

**XII. CERTIFICATION REGARDING USE OF
CONTRACT FUNDS FOR LOBBYING**

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any

Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
REQUIRED CONTRACT PROVISIONS FOR
DBE PARTICIPATION IN FEDERAL AID CONSTRUCTION CONTRACTS
(DBE GOAL PROJECT)

A. AUTHORITY AND DIRECTIVE: The Code of Federal Regulations, Title 49, Part 26 (49 CFR Part 26) as amended and the Louisiana Department of Transportation and Development's (DOTD) Disadvantaged Business Enterprise (DBE) Program are hereby made a part of and incorporated by this reference into this contract. Copies of these documents are available, upon request, from DOTD Compliance Programs Office, P. O. Box 94245, Baton Rouge, LA 70804-9245.

B. POLICY: It is the policy of the DOTD that it shall not discriminate on the basis of race, color, national origin, or sex in the award of any United States Department of Transportation (US DOT) financially assisted contracts or in the administration of its DBE program or the requirements of 49 CFR Part 26. The DOTD shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of US DOT assisted contracts. The DBE program, as required by 49 CFR Part 26 and as approved by US DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification of failure to carry out the approved DBE program, the US DOT may impose sanctions as provided for under 49 CFR Part 26 and may in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C.3801 et seq.).

C. DBE OBLIGATION: The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the DOTD deems appropriate.

The preceding policy and DBE obligation shall apply to this contract and shall be included in the requirements of any subcontract. Failure to carry out the requirements set forth therein shall constitute a breach of contract and, after notification by DOTD, may result in termination of the contract, a deduction from the contract funds due or to become due the contractor or other such remedy as DOTD deems appropriate. The contractor is encouraged to use the services offered by banks in the community which are owned and controlled by minorities or women when feasible and beneficial. The term DBE is inclusive of women business enterprises (WBE) and all obligations applicable to DBE shall apply to firms certified and listed as WBE.

D. FAILURE TO COMPLY WITH DBE REQUIREMENTS: All contractors and subcontractors are hereby advised that failure to carry out the requirements set forth above shall constitute a breach of contract and, after notification by DOTD may result in rejection of the bid; termination of the contract; a deduction from the contract funds due or to become due the contractor; or other such remedy as DOTD deems appropriate. Failure to comply with the DBE requirements shall include but not be limited to failure to meet the established goal and/or failure to submit documentation of good faith efforts; failure to exert a reasonable good faith effort (as determined by DOTD) to meet established goals; and failure to realize the DBE participation set forth on approved Form CS-6AAA and attachments. Failure to submit Form CS-6AAA and attachments and/or reasonable good faith efforts' documentation within the specified time requirements will result in the Department taking the actions specified in Heading G(6) below. The utilization of DBE is in addition to all other equal opportunity requirements of the contract. The contractor shall include the provisions in Sections B, C and D of these provisions in subcontracts so that such provisions will be binding upon each subcontractor, regular dealer, manufacturer, consultant, or service agency.

E. ELIGIBILITY OF DBE: The DOTD has included as part of the solicitation of bids a current list containing the names of firms that have been certified as eligible to participate as DBE on US DOT assisted contracts. This list is not an endorsement of the quality of performance of the firm but is simply an acknowledgment of the firm's

eligibility as a DBE. This list indicates the project numbers and letting date for which this list is effective. Only DBE listed on this list may be utilized to meet the established DBE goal for these projects.

F. COUNTING DBE PARTICIPATION TOWARD DBE GOALS: DBE participation toward attainment of the goal will be credited on the basis of total subcontract prices agreed to between the contractor and subcontractors for the contract items or portions of items being sublet as reflected on Form CS-6AAA and attachments, in accordance with the DOTD DBE Program, and the following criteria.

(1) Credit will only be given for use of DBE that are certified by the Louisiana Unified Certification Program. Certification of DBE by other agencies is not recognized.

(2) The total value of subcontracts awarded for construction and services to an eligible DBE is counted toward the DBE goal provided the DBE performs a commercially useful function. The contractor is responsible for ensuring that the goal is met using DBE that perform a commercially useful function.

The contractor shall operate in a manner consistent with the guidelines set forth in the DOTD DBE Program. A commercially useful function is performed when a DBE is responsible for the execution of a distinct element of work by actually managing, supervising, and performing the work in accordance with standard industry practices except when such practices are inconsistent with 49 CFR Part 26 as amended, and the DOTD DBE Program, and when the DBE receives due compensation as agreed upon for the work performed. To determine whether a DBE is performing a commercially useful function, the DOTD shall evaluate the work subcontracted in accordance with the DOTD DBE Program, industry practices and other relevant factors. When an arrangement between the contractor and the DBE represents standard industry practice, if such arrangement erodes the ownership, control or independence of the DBE, or fails to meet the commercially useful function requirement, the contractor will not receive credit toward the goal.

(3) A DBE prime contractor may count only the contract amount toward DBE participation for work he/she actually performs and for which he/she is paid. Any subcontract amounts awarded to certified DBE by a DBE prime will also be credited toward DBE participation provided the DBE subcontractor performs a commercially useful function.

(4) A contractor may count toward the DBE goal 100 percent of verified delivery fees paid to a DBE trucker. The DBE trucker must manage and supervise the trucking operations with its own employees and use equipment owned by the DBE trucker. No credit will be counted for the purchase or sale of material hauled unless the DBE trucker is also a DOTD certified DBE supplier. No credit will be counted unless the DBE trucker is an approved subcontractor.

(5) A contractor may count toward the DBE goal that portion of the dollar value with a joint venture equal to the percentage of the ownership and control of the DBE partner in the joint venture. Such crediting is subject to a favorable DOTD review of the joint venture agreement to be furnished by the apparent low bidder before award of the contract. The joint venture agreement shall include a detailed breakdown of the following:

- a. Contract responsibility of the DBE for specific items of work.
- b. Capital participation by the DBE.
- c. Specific equipment to be provided to the joint venture by the DBE.
- d. Specific responsibilities of the DBE in the control of the joint venture.
- e. Specific manpower and skills to be provided to the joint venture by the DBE.
- f. Percentage distribution to the DBE of the projected profit or loss incurred by the joint venture.

(6) A contractor may count toward the DBE goal only expenditures for materials and supplies obtained from DBE suppliers and manufacturers in accordance with the following:

a. The DBE supplier assumes actual and contractual responsibility for the provision of materials and supplies.

b. The contractor may count 100 percent of expenditures made to a DBE manufacturer provided the DBE manufacturer operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the contractor.

c. The contractor may count 60 percent of the expenditures to DBE suppliers who are regular dealers but not manufacturers, provided the DBE supplier performs a commercially useful function in the supply process including buying the materials or supplies, maintaining an inventory, and selling materials regularly to the public. Dealers in bulk items such as steel, cement, aggregates and petroleum products are not required to maintain items in stock, but they must own or operate distribution equipment. The DBE supplier shall be certified as such by DOTD.

d. A DBE may not assign or lease portions of its supply, manufactured product, or service agreement without the written approval of the DOTD.

(7) A contractor may count toward the DBE goal reasonable expenditures to DBE firms including fees and commissions charged for providing a bona fide service; fees charged for hauling materials unless the delivery service is provided by the manufacturer or regular dealer as defined above; and fees and commissions for providing any bonds or insurance specifically required for the performance of the contract.

(8) The contractor will not receive credit if the contractor makes direct payment to the material supplier. However, it may be permissible for a material supplier to invoice the contractor and DBE jointly and be paid by the contractor making remittance to the DBE firm and material supplier jointly. Prior approval by DOTD is required.

(9) The contractor will not receive credit toward the DBE goal for any subcontracting arrangement contrived to artificially inflate the DBE participation.

G. AWARD DOCUMENTATION AND PROCEDURE: This project has specific DBE goal requirements set forth in the Special Provision for DBE Participation in Federal Aid Construction Contracts. The bidder by signing this bid certifies that:

(1) The goal for DBE participation prescribed in the special provisions shall be met or exceeded and arrangements have been made with certified DBE or good faith efforts made to meet the goal will be demonstrated.

(2) Affirmative actions have been taken to seek out and consider DBE as potential subcontractors. Bidders shall contact DBE to solicit their interest, capability, and prices in sufficient time to allow them to respond effectively, and shall retain, on file, proper documentation to substantiate their good faith efforts.

(3) Form CS-6AAA and "Attachment to Form CS-6AAA" and, if necessary, documentation of good faith efforts shall be submitted within 10 business days following the opening of bids to the DOTD Compliance Programs Office. Submittals shall be personally delivered and date and time stamped into the DOTD Compliance Programs Office by the close of business, 10 business days after opening of bids; or mailed to the DOTD Compliance Programs Office by certified mail, return receipt requested and post marked by the 10th business day after the opening of bids. A business day is defined as a normal working day of DOTD.

Should a bidder protest or appeal any matter regarding the bidding or award of a contract in accordance with Subsection 102.13 of the 2006 Standard Specifications (Subsection 102.13 of the 2000 Louisiana Standard Specifications) after the scheduled time of bid opening, the Compliance Programs Section will immediately suspend the ten day requirement for submission of the CS-6AAA and Attachments until further notice and will notify all parties involved of the suspension. Once the protest has been resolved the

Compliance Programs Section will notify the low bidder and issue a date for submission of the CS-6AAA and Attachments.

All attachments to Form CS-6AAA shall include:

- a. The names of DBE subcontractors that will actually participate in meeting the contract goal; and
- b. A complete description of the work to be performed by the DBE including the specific items or portions of items of work, quantities, and unit price(s) of each item; and
- c. The total dollar value of each item that can be credited toward the contract goal; and
- d. Any assistance to be provided to the DBE; and
- e. The original signature of each DBE and the contractor attesting that negotiations are in progress and that it is the intention of the parties to enter into a subcontract within 60 calendar days from the time the contract is finalized between the contractor and DOTD.

It shall be the bidder's responsibility to ascertain the certification status of designated DBEs. An extension of time for submittal of Form CS-6AAA and Attachments will not be granted beyond the stated time. Questionable technical points will be cleared with the DOTD Compliance Programs Office within the time period allowed. If the documentation required is not provided in the time and manner specified, DOTD will take the actions specified in Heading (6) below.

(4) If the apparent low bidder is not able to meet the DBE goal, the DBE firms that can meet a portion of the goal shall be listed on the form CS-6AAA. Form CS-6AAA and attachments shall be completed and submitted in accordance with Heading (3) above 10 business days after opening of bids. Form CS-6AAA shall indicate the DBE participation which has been secured along with documentation of good faith efforts. The apparent low bidder shall document and submit justification stating why the goal could not be met and demonstrate the good faith efforts as shown in Section J.

The DOTD's evaluation of good faith efforts in the pre-award stage will focus only on efforts made prior to submittal of the bid. For consideration, good faith efforts shall include the requirements listed in these provisions as well as other data the contractor feels is relevant.

(5) Form CS-6AAA and attachments, and documentation of good faith efforts, when appropriate, will be evaluated by DOTD in the selection of the lowest responsible bidder. The information provided shall be accurate and complete. The apparent low bidder's proposed attainment of the DBE goal and/or demonstration of good faith efforts will be considered in the award of the contract.

(6) An apparent low bidder's failure, neglect, or refusal to submit Form CS-6AAA and attachments committing to meet or exceed the DBE goal and/or documentation of good faith efforts, shall constitute just cause for forfeiture of the proposal guarantee and the DOTD rejecting the bid, pursuing award to the next lowest bidder, or re-advertising the project. The original apparent low bidder will not be allowed to bid on the project should readvertisement occur.

The apparent low bidder shall forfeit the proposal guarantee unless the bidder can show that the reason for not meeting the requirements given in these DBE Provisions was beyond the bidder's control. The DOTD DBE Oversight Committee will review the bidder's reasons for not meeting these DBE Provisions and will decide if the reasons are sufficient to allow return of the proposal guarantee.

(7) The bidder has the right to appeal the DOTD's findings and rulings to the DOTD Chief Engineer. The bidder may present information to clarify the previously submitted documentation. The decision rendered by the DOTD Chief Engineer will be administratively final. There shall be no appeal to the US DOT. If the DOTD Chief Engineer does not rule in favor of the original apparent low bidder, the new apparent low bidder shall submit, in detail, its subsequent proposed DBE participation within 14 calendar days after notification.

(8) Agreements between the bidder and the DBE, whereby the DBE agrees not to provide subcontracting quotations to other bidders, are prohibited.

H. POST AWARD COMPLIANCE

(1) If the contract is awarded on less than full DBE goal participation, such award will not relieve the contractor of the responsibility to continue exerting good faith efforts. The contractor shall submit documentation of good faith efforts with requests to sublet prior to approval of subcontracting work being performed on the project.

(2) The contractor shall establish a program which will effectively promote increased participation by DBE in the performance of contracts and subcontracts. The contractor shall also designate and make known to the DOTD a liaison officer who will be responsible for the administration of the contractor's DBE program.

(3) The contractor shall enter into subcontracts or written agreements with the DBE identified on Form CS-6AAA and attachments for the kind and amount of work specified. The subcontracting requirements of the contract will apply. The contractor shall submit copies of subcontracts or agreements with DBE to DOTD upon request.

(4) The contractor shall keep each DBE informed of the construction progress schedule and allow each DBE adequate time to schedule work, stockpile materials, and otherwise prepare for the subcontract work.

(5) At any point during the project when it appears that the scheduled amount of DBE participation may not be achieved, the contractor shall provide evidence demonstrating how the goal will be met.

(6) If the contractor is unable to demonstrate to the DOTD's satisfaction that it failed to achieve the scheduled DBE participation due to reasons other than quantitative underruns or elimination of items contracted to DBE and that good faith efforts have been used to obtain the scheduled contract participation, the DOTD may withhold an amount equal to the difference between the DBE goal and the actual DBE participation achieved as damages.

(7) When the DOTD has reason to believe the contractor, subcontractor, or DBE may not be operating in compliance with the terms of these DBE provisions, to include, but not be limited to the encouragement of fronting, brokering, or not providing a commercially useful function, the DOTD will conduct an investigation of such activities with the cooperation of the parties involved. If the DOTD finds that any person or entity is not in compliance, the DOTD will notify such person or entity in writing as to the specific instances or matters found to be in noncompliance.

At the option of the DOTD, the person or entity may be allowed a specified time to correct the deficiencies noted and to achieve compliance. In the event that the person or entity cannot achieve compliance, or fails or refuses to do so, the DOTD reserves the right to initiate administrative action against the contractor which may include but not be limited to terminating the contract; withholding a percentage of the contractor's next partial payment equal to the shortfall amount until corrective action is taken; or other action the DOTD deems appropriate. The contractor has the right to appeal the DOTD's finding and rulings to the DOTD Chief Engineer.

The contractor may present additional information to clarify that previously submitted. Any new information not included in the original submittal will not be used in the final determination. The decision rendered by the DOTD Chief Engineer will be administratively final.

(8) To ensure that the obligations under subcontracts awarded to subcontractors are met, the DOTD will review the contractor's efforts to promptly pay subcontractors for work performed in accordance with the executed subcontracts. The contractor shall promptly pay subcontractors and suppliers, including DBE, their respective subcontract amount within 14 calendar days after the contractor receives payment from DOTD for the items satisfactorily performed by the subcontractors in accordance with Louisiana Revised Statute 9:2784. The contractor shall provide the DBE with a full accounting to include quantities paid and

deductions made from the DBE's partial payment at the time the check is delivered. Retainage may not be held by the contractor. Delay or postponement of payment to the subcontractor may be imposed by the contractor only when there is evidence that the subcontractor has failed to pay its labor force and suppliers for materials received and used on the project. Delay or postponement of payment must have written approval by the Project Engineer. Failure to promptly pay subcontractors or to release subcontractors' retainage shall constitute a breach of contract and after notification by the DOTD may result in (1) a deduction from the contract funds due or to become due the contractor, (2) disqualification of a contractor as non-responsive, or (3) any other such remedy under the contract as DOTD deems appropriate. All subcontracting agreements made by the contractor shall include the current payment to subcontractors provisions as incorporate in the contract. All disputes between contractors and subcontractors relating to payment of completed work or retainage shall be referred to the DBE Oversight Committee. Members of the DBE Oversight Committee are: the Deputy Chief Engineer;; the DOTD Compliance Programs Director; and a FHWA Division Representative.

(9) The contractor shall meet the requirements of Subsection 108.01 Subletting of Contract, and shall submit DOTD Forms OMF-1A, Request to Sublet and OMF-2A, Subcontractor's EEO Certification. These forms shall be approved by DOTD before any subcontract work is performed.

(10) DOTD reserves the right to withhold any partial payment from the contractor when it is determined that a DBE is not performing a commercially useful function or that achievement of the goal is in jeopardy. Payment may be withheld in the amount of the DBE goal that is in jeopardy until either the contractor submits to DOTD a revised plan for achieving the contract goal and the plan is approved, or the DBE goal amount in question has been met.

(11) The DOTD will monitor the contractor's DBE involvement during the contract, the level of effort by the contractor in meeting or exceeding the goal requirements in the contract, the contractor's attempts to do so, and the efforts in soliciting such involvement. If, at the completion of the project, the contractor has failed to meet the DBE goal and has not demonstrated good faith efforts or obtained a waiver or reduction of the goal, DOTD will withhold an amount equal to the difference between the DBE goal and the actual DBE participation achieved as damages.

I. SUBSTITUTIONS OF DBE FIRMS AFTER AWARD

(1) The contractor shall conform to the scheduled amount of DBE participation.

(2) Contract items designated to be performed by the DBE on Form CS-6AAA and attachments shall be performed by the designated DBE or DOTD approved substitute. Substitutions of named DBE shall be approved in writing by the DOTD Compliance Programs Section. Substituted DBE shall not commence work until the contractor is able to demonstrate that the listed DBE is unable to perform because of default, overextension on other jobs, or other acceptable justification. It is not intended that a contractor's ability to negotiate a more advantageous contract with another subcontractor be considered a valid basis for change. Substitution of DBE will be allowed only when the DBE is unable to perform due to default, overextension on other jobs, or other similar justification. Evidence of good faith efforts exerted by the contractor shall be submitted to DOTD for approval. Pay items of work eliminated from the project will not diminish the contractor's DBE participation.

(3) Under no circumstances will a contractor perform work originally designated to be performed by a DBE without prior written approval from the DOTD Compliance Programs Section.

(4) When a listed DBE is unwilling or unable to perform the items of work specified in the Form CS-6AAA and attachments, the contractor shall immediately notify the DOTD Compliance Programs Section.

When a contractor's request to be relieved of the obligation to use the named DBE results in a DBE Goal shortfall, the contractor shall immediately take steps to obtain another certified DBE to perform an equal amount of allowable credit work or make documented good faith efforts to do so. The new DBE's name and designated work shall be submitted to the DOTD for approval using Form OMF-1A, Request to Sublet, prior to proceeding with the work.

If the contractor is unable to replace a defaulting DBE with another DBE for the applicable item, a good faith effort shall be made to subcontract other items to DBE for the purpose of meeting the goal. The DOTD Compliance Programs Section will determine if the contractor made an acceptable good faith effort in awarding work to DBE firms. Any disputes concerning good faith efforts will be referred to the DBE Oversight Committee. The DOTD Compliance Programs Section may allow a waiver or adjustment of the goal as may be appropriate, depending on individual project circumstances.

J. GOOD FAITH EFFORTS: Good faith efforts are required by the contractor when the DBE goals established for a contract are not met, or at anytime during the contract when achievement of the DBE goal is in jeopardy. It is the contractor's responsibility to provide sufficient evidence for DOTD to ascertain the efforts made. The contractor shall demonstrate good faith efforts to maximize participation by DBE prior to award and during the life of the contract. Good faith efforts include personal contacts, follow-ups and earnest negotiations with DBE. DOTD will consider, at a minimum, the following efforts as relevant, although this listing is not exclusive or exhaustive and other factors and types of efforts may be relevant:

(1) Efforts made to select portions of the work to be performed by DBE in order to increase the likelihood of achieving the stated goal. It is the contractor's responsibility to make a sufficient portion of the work available to subcontractors and suppliers and to select those portions of work or materials consistent with the availability of DBE subcontractors and suppliers to assure meeting the goal for DBE participation. Selection of portions of work are required to at least equal the DBE goal in the contract.

(2) Written notification at least 14 calendar days prior to bid opening which solicits a reasonable number of DBE interested in participation in the contract as a subcontractor, regular dealer, manufacturer, or consultant for specific items of work. The contractor shall provide notice to a reasonable number of DBE that their interest in the contract is being solicited, with sufficient time to allow the DBE to participate effectively. The contractor shall seek DBE in the same geographic area from which it generally seeks subcontractors for a given project. If the contractor cannot meet the goal using DBE from the normal area, the contractor shall expand its search to a wider geographic area.

(3) Demonstrated efforts made to negotiate in good faith with interested DBE for specific items of work include:

a. The names, addresses and telephone numbers of DBE contacted. The dates of initial contact and whether initial solicitations of interest were followed-up personally, by mail, or by phone to determine the DBE interest.

b. A description of the information provided to DBE regarding the nature of the work, the plans and specifications and estimated quantities for portions of the work to be performed.

c. A statement of why additional agreements with DBE were not reached.

d. Documentation of each DBE contacted but rejected and the reasons for rejection. All bids and quotations received from DBE subcontractors whether verbal or written, and the contractor's efforts to negotiate a reasonable price shall be submitted. Rejecting a DBE's bid because it was not the lowest quotation received will not be satisfactory reason without an acceptable explanation of how it was determined to be unreasonable. A statement that the DBE's quotation was more than the contractor's bid price for an item or items will not be acceptable.

e. Copies of all bids and quotations received from DBE subcontractors and an explanation of why they were not used.

- f. Scheduling meetings to discuss proposed work or to walk the job-site with DBE.
- g. Informing DBE of any pre-bid conferences scheduled by the DOTD.
- h. Assisting DBE in obtaining bonding, insurance, or lines of credit required by the contractor.
- i. Evidence of DBE contacted but rejected as unqualified, accompanied by reason for rejection based on a thorough investigation of the DBEs capabilities.
- j. Any additional information not included above which would aid the DOTD in evaluation of the contractor's good faith efforts.

(4) The following are examples of actions that will not be accepted as justification by the contractor for failure to meet DBE contract goals:

- a. Failure to contract with a DBE solely because the DBE was unable to provide performance and/or payment bonds.
- b. Rejection of a DBE bid or quotation based on price alone.
- c. Failure to contract with a DBE because the DBE will not agree to perform items of work at the unit price bid.
- d. Failure to contract with a DBE because the contractor normally would perform all or most of the work in the contract.
- e. Rejection of a DBE as unqualified without sound reasons based on a thorough investigation of their capabilities.
- f. Failure to make more than mail solicitations.

K. RECORD KEEPING REQUIREMENTS: The contractor shall keep such records as are necessary for the DOTD to determine compliance with the DBE contract obligations. These records shall include the names of subcontractors, including DBE; copies of subcontracts; the type of work being performed; documentation such as canceled checks and paid invoices verifying payment for work, services, and procurement; and documentation of correspondence, verbal contacts, telephone calls, and other efforts to obtain services of DBE. When requested, the contractor shall submit all subcontracts and other financial transactions executed with DBE in such form, manner and content as prescribed by DOTD. The DOTD reserves the right to investigate, monitor and/or review actions, statements, and documents submitted by any contractor, subcontractor, or DBE.

L. REPORTING REQUIREMENTS: The contractor shall submit monthly reports on DBE involvement. At the conclusion of each estimate period the contractor shall submit the Form CP-1A, CONTRACTORS MONTHLY DBE PARTICIPATION, to the project engineer to verify actual payments to DBE for the previous month's reporting period. These reports will be required until all DBE subcontracting activity is complete or the DBE Goal has been achieved. Reports are required regardless of whether or not DBE activity has occurred in the monthly reporting period.

Upon completion of all DBE participation, the contractor shall submit the Form CP-2A, DBE FINAL REPORT, to the DOTD Compliance Programs Section with a copy to the project engineer detailing all DBE subcontract payments. When the actual amount paid to DBE is less than the award amount, a complete explanation of the difference is required. If the DBE goal is not met, documentation supporting good faith efforts shall be submitted. Failure to submit the required reports will result in the withholding of partial payments to the contractor until the reports are submitted. All payments due subcontractors which affect DBE goal attainment, including retainage, shall be paid by the contractor before the DOTD releases the payment/performance/retainage bond.

The DOTD reserves the right to conduct an audit of DBE participation prior to processing the final estimate and at any time during the work.

M. APPLICABILITY OF PROVISIONS TO DBE BIDDERS: These provisions are applicable to all bidders including DBE bidders. The DBE bidder is required to perform at least 50 percent of the work of the contract with its own work force in accordance with the terms of the contract, normal industry practices, and the DOTD DBE Program. If the DBE bidder sublets any portion of the contract, the DBE bidder shall comply with provisions regarding contractor and subcontractor relationships. A DBE prime contractor may count only the contract amount toward DBE participation for work that he/she actually performs and any amounts awarded to other certified DBE subcontractors that perform a commercially useful function.

FORM CS-6AAA
BIDDERS ASSURANCE OF DBE PARTICIPATION

S.P.#	Contract Amount: \$
F.A.P.#	DBE Goal Percentage
Letting Date:	DBE Goal Dollar Value: \$

By its signature affixed hereto, the contractor assures the DOTD that one of the following situations exists (check only one box):

- ☐ The project goal will be met or exceeded.
- ☐ A portion of the project goal can be met, as indicated below. Good faith effort documentation is attached. DBE Goal Participation Amount _____ % \$ _____.

The contractor certifies that each firm listed is currently on the DBE list as maintained by DOTD and is certified for the items of work shown on the attachment(s). The contractor having assured that the goal for DBE participation prescribed in the special provisions will be met or exceeded, or that the portion of the DBE goal will be met or exceeded, attests that negotiations are in progress or complete and that a subcontract(s) will be executed with the firm(s) listed below within 60 calendar days after award of contract.

NAME OF DBE FIRM(S)	INTENDED SUBCONTRACT PRICE ¹

¹For supplier list only the value of the subcontract that can be credited toward the DBE goal. This amount shall be equal to the amount shown for the supplier on the Attachment to Form CS-6AAA. Details are listed on the attachment(s) to Form CS-6AAA.

The contractor assessed the capability and availability of named firm(s) and sees no impediment to prevent award of subcontract(s) as described on the attachments.

The contractor shall evaluate the subcontract work or services actually performed by the DBE to ensure that a commercially useful function is being served in accordance with the Required Contract Provisions for DBE Participation in Federal Aid Construction Contracts. The contractor understands that no credit toward the DBE goal will be allowed for DBE that do not perform a commercially useful function. The contractor has a current copy of the DOTD DBE Program Implementation Guide which details the methods of operation that are acceptable on projects containing DBE goals. Copies of this guide may be obtained by calling the DOTD Compliance Programs Section at (225) 379-1382.

NAME OF CONTRACTOR	
AUTHORIZED SIGNATURE	
TYPED OR PRINTED NAME	
TITLE	
CONTRACTOR'S DBE LIAISON OFFICER (typed or printed name)	
PHONE NUMBER	
DATE	TAX ID#

06/08

ATTACHMENT TO FORM CS-6AAA

Contractor shall submit a separate attachment for each DBE listed on Form CS-6AAA.

S.P.#	F.A.P.#
NAME OF DBE	
PHONE #	CONTACT PERSON:

Fully describe the work to be performed (furnish materials and install, labor only, supply only, manufacture, hauling, etc.), quantity, unit price, and dollar value for each item to be subcontracted to the DBE listed below.

ITEM NO.	QUANTITY/UNIT PRICE/DESCRIPTION OF WORK TO BE PERFORMED	S VALUE

Describe the types of assistance, if any, the contractor will provide to any DBE on this project.

The contractor and DBE subcontractor attest that a subcontract will be executed for the items of work listed above. The contractor acknowledges that it will only receive credit toward the DB goal if the subcontractor performs a commercially useful function. The DBE understands that it is responsible for performing a commercially useful function.

DBE CONTRACTOR'S SIGNATURE	
TYPED OR PRINTED NAME	
TITLE	
DATE	TAX ID#
PRIME CONTRACTOR'S SIGNATURE	
TYPED OR PRINTED NAME	
TITLE	
DATE	

06/08

FORM CP-1A
LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
CONTRACTOR'S MONTHLY DBE PARTICIPATION

STATE PROJECT NO.	CONTRACTOR:	
FEDERAL AID PROJECT NO.	REPORT PERIOD: _____ TO _____	
ESTIMATE NO.		

DOTD CERTIFIED DBE SUBCONTRACTOR OR SUPPLIER	ITEMS PERFORMED AND PAID THIS ESTIMATE PERIOD	AMOUNT PAID THIS MONTH ¹	TOTAL PAID TO DATE ¹

¹For suppliers, list total amount paid and the 60 percent value counted toward the goal.

This report covers the previous estimate period and shall be submitted to the Project Engineer with the current month's pay estimate. Estimates will be withheld until required form is submitted. Questions should be directed to the DOTD Compliance Programs Section at (225) 379-1382.

The Contractor certifies that the above amounts were paid to the listed DBEs and that documentation of these payments is available for inspection.

Project Engineer has reviewed this form. _____ (Signature of Project Engineer).

Authorized Signature
Typed or Printed Name
Title
Phone No.
Date

06/08

FORM CP-2A

STATE PROJECT NO.	DBE GOAL AMOUNT: \$	CONTRACTOR:
FEDERAL PROJECT NO.	CONTRACT AMOUNT: \$	
PARISH(ES)	LETTING DATE:	

[illegible]

This is to certify that \$_____ has been paid to Disadvantaged Business Enterprise Subcontractors/Suppliers listed above.

Authorized Signature
Typed or Printed Name
Title
Date

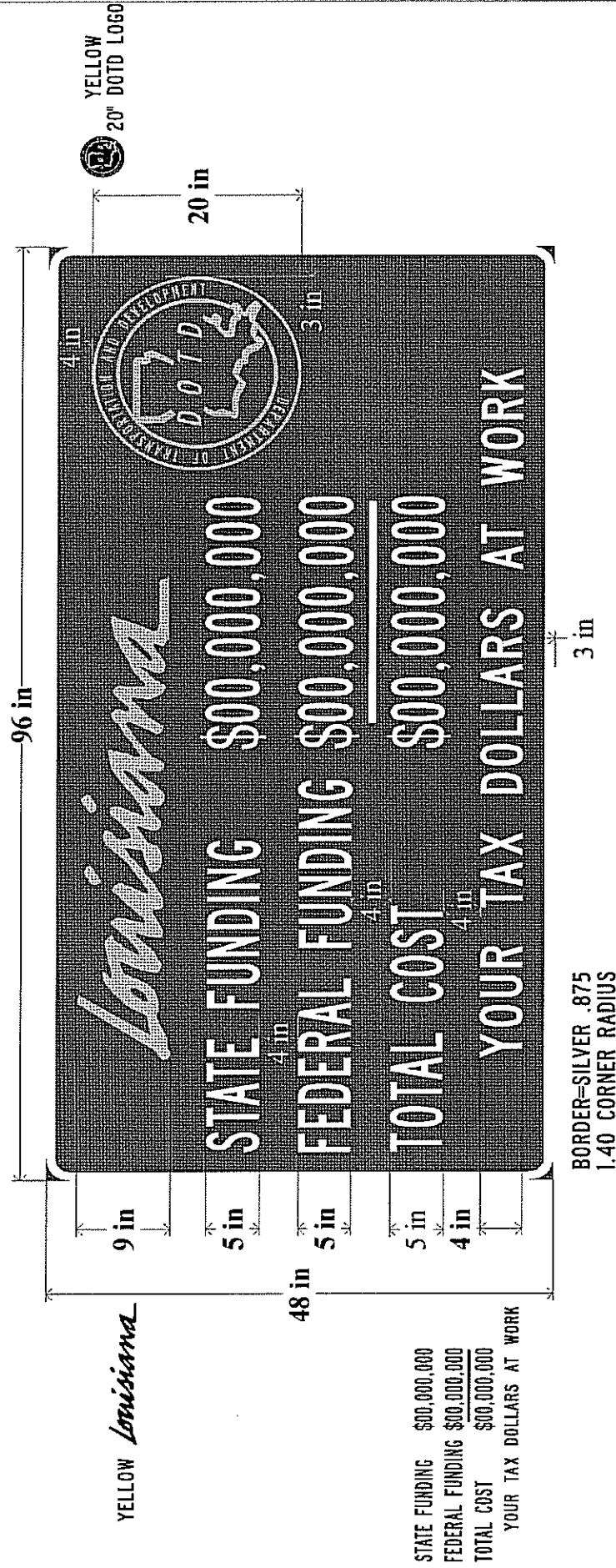
Parish or County _____ State of _____
 Subscribed and sworn to, before me, this _____ day of _____, A.D. 20_____
 Notary Public _____
 My commission expires: _____

06/08

PROJECT SIGN
LA TAX DOLLARS AT WORK
(COLOR ARTWORK FURNISHED UPON REQUEST)

Silver Font – TRAFFICAD C

BLUE BACKGROUND
WITH SILVER LETTERS



General Decision Number: LA080014 03/13/2009 LA14

Superseded General Decision Number: LA20070040

State: Louisiana

Construction Type: Highway

Counties: Jefferson, Orleans, Plaquemines, St Bernard, St Charles, St James, St John the Baptist and St Tammany Counties in Louisiana.

HIGHWAY CONSTRUCTION PROJECTS (Does not include building structures in rest area projects)

Modification Number	Publication Date
0	02/08/2008
1	05/09/2008
2	06/20/2008
3	07/18/2008
4	09/05/2008
5	01/16/2009
6	02/13/2009
7	03/13/2009

CARP1098-005 02/01/2006

ST. JAMES PARISH (North of the Mississippi River)

	Rates	Fringes
PILEDRIVERMAN.....	\$ 19.92	5.65

CARP1846-002 02/01/2006		

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST. JAMES (South of the Mississippi River), ST. JOHN THE BAPTIST, AND ST. TAMMANY PARISHES

	Rates	Fringes
PILEDRIVERMAN.....	\$ 19.92	5.00

* ELEC0130-010 12/01/2008		

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST. JAMES, AND ST. JOHN THE BAPTIST PARISHES

	Rates	Fringes
ELECTRICIAN (including traffic signal wiring and installation).....	\$ 25.00	8.33

* ELEC1077-007 03/01/2009		

ST. TAMMANY PARISH

	Rates	Fringes
--	-------	---------

ELECTRICIAN (including traffic signal wiring and installation).....	\$ 21.50	6.26
---	----------	------

ENGI0406-015 07/01/2008

	Rates	Fringes
POWER EQUIPMENT OPERATOR Asphalt/Aggregate Spreader..	\$ 20.76	5.70

IRON0058-004 06/01/2008

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 19.40	6.82

SULA2004-014 07/30/2004

	Rates	Fringes
CARPENTER (including formbuilding/formsetting).....	\$ 13.42	3.04
Cement Mason/Concrete Finisher...	\$ 13.24	1.68
IRONWORKER, REINFORCING.....	\$ 15.84	3.47

Laborers

Asphalt Raker.....	\$ 10.13	0.18
General.....	\$ 9.26	1.14
Guardrail.....	\$ 8.81	1.80
Mason Tender.....	\$ 8.51	1.20
Pipelayer.....	\$ 9.99	1.20
Striping/Pavement Marker includes paint striping and attachment of reflector buttons.....	\$ 8.24	1.20
Traffic Control including flagger, sign placement, barricades, and cones.....	\$ 8.39	1.80

Painter, Brush, Spray and Roller.....	\$ 14.16	2.03
--	----------	------

Power Equipment Operators

Asphalt Paving Machine.....	\$ 14.38	0.18
Asphalt Screed.....	\$ 13.76	2.20
Backhoe/Excavator.....	\$ 13.93	3.00
Broom/Sweeper.....	\$ 12.78	2.92
Bulldozer.....	\$ 13.58	0.00
Crane.....	\$ 17.20	3.30
Front End Loader.....	\$ 13.31	0.00
Mechanic.....	\$ 13.53	2.92
Milling/Cold Planing Machine includes Rotomill and CMI Cutter.....	\$ 15.50	0.00
Motor Grader/Blade.....	\$ 14.42	3.02
Oiler.....	\$ 13.91	2.37
Post Driver.....	\$ 13.73	0.00

Roller.....	\$ 13.11	3.30
Trackhoe.....	\$ 11.00	0.00
Trenching/Boring Machine....	\$ 12.51	0.00

Truck drivers

Dump (all types).....	\$ 10.64	0.18
Flatbed.....	\$ 10.87	0.00
Lowboy.....	\$ 13.24	0.00
Pickup.....	\$ 10.60	0.00
Water.....	\$ 12.00	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

=====

General Decision Number: LA080008 05/15/2009 LA8

Superseded General Decision Number: LA20070012

State: Louisiana

Construction Type: Heavy

Counties: Jefferson, Orleans, Plaquemines, St Bernard, St Charles, St James, St John the Baptist and St Tammany Counties in Louisiana.

HEAVY CONSTRUCTION PROJECTS (Includes flood control, water & sewer lines, and water wells. Also includes elevated storage tanks in all listed parishes except St. James. Excludes industrial construction-chemical processing, power plants, and refineries.)

Modification Number	Publication Date
0	02/08/2008
1	05/09/2008
2	06/06/2008
3	07/04/2008
4	09/05/2008
5	01/16/2009
6	02/13/2009
7	03/13/2009
8	05/15/2009

CARP1846-006 02/01/2006

	Rates	Fringes
CARPENTER		
(formbuilding/formsetting).....	\$ 19.92	5.00
Millwright/Piledriverman.....	\$ 19.92	5.00

ELEC0130-005 12/01/2008

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST.
JAMES, AND ST. JOHN THE BAPTIST PARISHES

	Rates	Fringes
ELECTRICIAN (including low		
voltage wiring).....	\$ 25.00	8.33

ELEC1077-002 03/01/2009

ST. TAMMANY PARISH

	Rates	Fringes
ELECTRICIAN (including low		
voltage wiring).....	\$ 21.50	6.26

ENG10406-018 07/01/2008

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Bulldozer.....	\$ 20.76	5.70
Mechanic.....	\$ 22.31	5.70

* PLAS0567-003 07/01/2008

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST.
JOHN THE BAPTIST, AND ST. TAMMANY PARISHES

	Rates	Fringes
Cement Mason/Concrete Finisher...	\$ 19.73	3.24

PLAS0812-003 06/01/2004

ST. JAMES PARISH

	Rates	Fringes
Cement Mason/Concrete Finisher...	\$ 21.85	0.00

PLUM0060-002 12/01/2008

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST.
JAMES (Southeastern Portion), ST. JOHN THE BAPTIST, and ST.
TAMMANY PARISHES

	Rates	Fringes
PLUMBER/PIPEFITTER (excluding pipe laying).....	\$ 25.02	8.18

 PLUM0198-005 07/01/2008

ST. JAMES PARISH (Northwestern Portion)

	Rates	Fringes
PLUMBER (excluding pipe laying).....	\$ 23.64	7.84

 SULA2004-007 05/13/2004

	Rates	Fringes
CARPENTER (all other work).....	\$ 13.75	2.60

Laborers:

Common/Landscape.....	\$ 9.88	0.00
Fence.....	\$ 11.24	0.00
Flagger.....	\$ 8.58	0.00
Mason Tender.....	\$ 7.00	0.00
Pipelayer.....	\$ 9.84	0.00

PIPEFITTER (excluding pipelaying).....	\$ 17.52	4.51
--	----------	------

Power equipment operators:

Backhoe/Excavator.....	\$ 14.42	0.00
Crane.....	\$ 16.34	3.30
Dragline.....	\$ 16.50	0.00
Front End Loader.....	\$ 13.89	0.00
Oiler.....	\$ 10.03	0.00

Truck drivers:

Dump.....	\$ 11.01	0.00
Pickup.....	\$ 12.25	0.00

 WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
 =====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

 In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

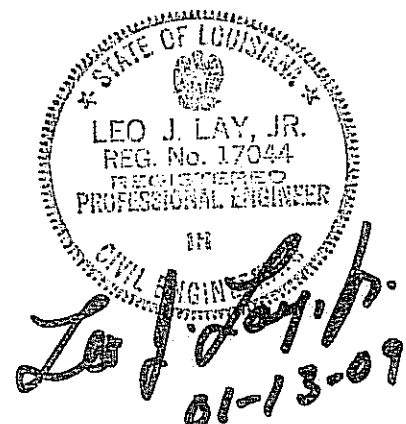
**TECHNICAL SPECIFICATIONS
FOR
CAMINADA BAY BRIDGE
POTABLE WATER DISTRIBUTION
SYSTEM RELOCATION**

STATE PROJECT NO. 064-01-0040

JEFFERSON PARISH PUBLIC WORKS NO. 2008-030-WR

INCLUDED IN THESE TECHNICAL SPECIFICATIONS ARE:

- DIVISION II, SECTION S-001, WATER DISTRIBUTION SYSTEM PAGES 1-7.
- APPENDIX "C", JEFFERSON PARISH DEPARTMENT OF ENGINEERING WATER DISTRIBUTION SYSTEM GENERAL STANDARD NOTES PAGES 1-28.



DIVISION II
TECHNICAL SPECIFICATIONS
SECTION S-001
WATER DISTRIBUTION SYSTEM

PART 1: DESCRIPTION:

All water distribution work shall be performed in total conformance with Jefferson Parish Standards and as per manufacturer's requirements and recommendations.

All work shall be to the lines and grades shown. All work associated with the water line shall be performed under this item.

This work will include furnishing and constructing the water lines and appurtenances as indicated on the Drawings and in accordance with the provisions of the Jefferson Parish Department of Engineering and the Specifications herein. Where the word "pipe" and/or "water line" are used it shall refer to pipe, fittings, or appurtenances unless otherwise noted.

The Contractor shall furnish all labor, equipment and materials required to perform all work required for removal of existing water line and for installation of new waterlines. Removal and installation, replacement or relocation shall be as indicated on the drawings and specified herein. Damage to any waterlines by the Contractor, subcontractors, material and equipment suppliers or other persons, prior to acceptance, shall be repaired by the Contractor to the satisfaction of the Engineer and Owner at the expense of the Contractor.

The drawings attempt to indicate the alignment of all known waterlines within the limits of the work. However, the Contractor shall be responsible to inspect the entire project to verify all existing waterlines and to determine the existence of any additional conflicts with his work.

PART 2: COORDINATION:

Removal and replacement or relocation of waterlines shall be done in close coordination with the Owner. Removal and replacement or relocation work shall be planned in advance so that inconvenience to the Owner and utility users caused by the disruption of service is minimized.

PART 3: CONSTRUCTION LAYOUT:

The Contractor will be responsible for establishing all lines and grades and staking out all "Water Distribution System" work on this project from controls provided in the bridge construction documents. There shall be no direct payment for construction layout related to the "Water Distribution System".

PART 4: MATERIALS:

All materials shall be as specified in Jefferson Parish Standard Notes and Drawings and as specified herein.

Offset Pipe Clamp shall be constructed from ½" x 4" stock in Type 316 stainless steel. All parts shall be formed with the exception of the support feet, which are turned inward and shall be welded. Offset pipe clamps shall be "SP179SS" as manufactured by PHS Industries, 434 Latigue Road, Waggaman, LA 70094, phone number (800) 256-9383 or approved equal.

Expansion/Contraction Coupling shall be "Flex-Tend" manufactured by "EBAA IRON INC." or approved equal.

Long body transition couplings shall be HYMAX Series 2000 transition couplings as supplied by Total Piping Systems. Transition couplings shall be furnished with EPDM NSF-61 approved multilayered wide range gaskets and have 2 ANSI 304 stainless steel nuts and bolts. Bolts shall be coated with an anti-seize type coating. Couplings shall be domestically produced and shall be coated interior and exterior with NSF-61 fusion bonded coating generally conforming to AWWA C213-01 section 4.5.

Air Release Valve shall be 1" ARI Part # D-040-C-01 threaded cast iron air release valve or approved equal.

PART 5: EXECUTION:

Pipe, fittings, and accessories shall be handled in a manner that will insure installation in sound, undamaged condition. Equipment, tools, and methods used in handling and installing pipe and fittings shall not damage the pipe and fittings. Hooks inserted in ends of pipe shall have broad, well padded contact surfaces.

All pipe coating which has been damaged shall be repaired by the Contractor before installing the pipe.

Pipe to be installed shall be done with sections and fittings such that pipe cutting is not required. Should pipe cutting be required, cutting shall be done in a neat manner, without damage to the pipe or to the lining. Cuts shall be smooth, straight, and at right angles to the pipe axis. After cutting, the end of the pipe shall be dressed with a file to remove all roughness and sharp corners.

All cutting of ductile iron pipe shall be done with mechanical pipe cutters except where the use of mechanical cutters would be difficult or impracticable. Ends of ductile iron pipe shall be cut with a saw, abrasive wheel, or oxyacetylene torch. Field cut holes for saddles shall be cut with mechanical cutters; oxyacetylene cutting will not be permitted.

The interior of all pipe and fittings shall be thoroughly cleaned of foreign matter and must be swabbed with chlorine prior to installation and shall be kept clean until the work has been accepted. Before jointing, all joint contact surfaces shall be wire brushed if necessary, wiped clean, and kept clean until jointing is completed.

Precautions shall be taken to prevent foreign material from entering the pipe during installation. Debris, tools, clothing, or other materials shall not be placed in or allowed to enter the pipe.

WATER LINE ATTACHED TO THE BRIDGE

Push-on joint ductile iron water line attached to the bridge shall be strapped down behind each bell. Care must be exercised in assembling the joints. Generally push-on joints should not be assembled completely "home" if installed in the winter. To account for the bridge expansion and contraction, it is recommended for each push-on joint to be driven home and pulled back 1/4".

At each end of the bridge a minimum 60' of the proposed water line shall be restrained pipe per Manufacturer and Jefferson Parish Standards (After installation each joint is to be fully extended to prevent movement upon pressurization.) The Offset Pipe Clamp Assembly shall be used as Thrust Blocking for the entire restrained length of the water line on the bridge. This may be accomplished by installing "Mid Span Restraints" ("Ebaa Iron Series 1100SDB" or approved equal) adjacent to the "Offset Pipe Clamp Assemblies" or any other method acceptable to the owner (Jefferson Parish).

CONCRETE PIPE SUPPORT BLISTER SPACING

Pipe support blister spacing is nominally 20' and 18'. The contractor must make adjustments to the pipe support blister spacing and/or pipe lengths to allow for construction of an integrated and

fully functional pipe/support system. Close coordination between the "Bridge Constructors" crew and the "Pipe" crew would be vital.

TRENCHING

Excavate trenches to the indicated or required depth. Maintain uniform width required for particular item to be installed, including width to provide ample working room. Provide 12" clearance on both sides of pipe or conduit as minimum.

Protect excavations by shoring, bracing, sheet piling, underpinning, or other methods required to prevent cave-in or loose soil from falling into excavation.

Notify Engineer of unexpected subsurface conditions and discontinue work in affected area until notification to resume work.

Grade excavation top perimeter to prevent surface water run-off into excavation.

Excavation work shall be performed in a safe and proper manner with appropriate precautions being taken against all hazards.

Cut trenches sufficiently wide to enable installation of utilities and allow inspection.

BACKFILL

Backfill material shall be Mississippi River "pumped sand", AASHTO A-4 or better having a maximum liquid limit of 25 and a maximum plasticity index of 6. All sands shall be free of trash, weeds, lumps, humus, pieces of wood or any other deleterious material. It shall also have a group index number not to exceed 6.

Hand trim excavation and leave free of loose matter.

Correct unauthorized excavation at no cost to Owner.

Support pipe and conduit during placement and compaction of pipe backfill.

CONNECTION TO EXISTING PIPING

All water system valves and hydrants shall be operated by the Jefferson Parish Water Department. The Contractor shall not operate water system valves. All tie-ins to the existing water lines shall be done by the Contractor.

Connections between new work and existing piping shall be made using fittings suitable for the conditions encountered and as indicated on the drawings. Each connection with an existing pipe shall be made at a time and under conditions which will least interfere with service to customers, and as authorized by the Owner. Facilities shall be provided for proper dewatering and for disposal of all water removed from the dewatered lines and excavations without damage to adjacent property.

REMOVAL AND DISPOSAL OF EXISTING "AC" WATERLINES

Removal and disposal of Existing "AC" waterlines shall be in accordance with all applicable local and federal regulations and requirements.

PIPELINE TESTING AND STERILIZATION

Except as modified or otherwise provided herein, the pressure and leakage testing of all waterlines shall conform to the requirements of Jefferson Parish and AWWA C600.

PART 6: DEVIATIONS FROM JEFFERSON PARISH WATER STANDARDS NOTES:

- A. Factory asphaltic exterior coating of ductile iron pipe will be sufficient for all proposed exposed ductile iron pipes (bridge section); no special painting will be required.
- B. With the exception of each bridge end, ductile iron pipes attached to the bridge shall be thickness class 51, push-on, non-restrained pipe meeting ANSI/AWWA A21.51/C151 and ANSI/AWWA A21.50/C150. At each end of the bridge the proposed water line shall be restrained pipe per Manufacturer and Jefferson Parish Standards.
- C. At each end of the bridge a minimum 60' of the proposed water line shall be restrained pipe per Manufacturer and Jefferson Parish Standards (After installation each joint is to be fully extended to prevent movement upon pressurization, see plans). The Offset Pipe Clamp Assembly shall be used as Thrust Blocking for the entire restrained length of the water line on the bridge. This may be accomplished by installing "Mid Span Type Restraints" ("Ebaa Iron Series 1100SDB" or approved equal) adjacent (both side) to the "Offset Pipe Clamp Assemblies" or any other method of Thrust Blocking acceptable to the owner (Jefferson Parish).

PART 7: MEASUREMENT AND PAYMENT:

Payment for this work will be made after receipt of approval from Jefferson Parish Department of Engineering.

The price and payment shall constitute full compensation for furnishing all labor, materials, and equipment to construct the water line including trenching, bedding, pipe laying, backfill, tie-ins to existing water lines, pressure testing mains and all incidental work necessary for a complete and functional waterline.

Pipeline shall be measured horizontally through fittings along the centerline of pipeline in place.

Existing AC waterlines which shall be removed and disposed of shall be measured horizontally through fittings along the centerline of pipeline. There shall be no direct payment for subsurface non-AC pipe removal and disposal.

Fire Hydrant installations shall be paid per each installation complete in place including all fittings, valve, valve box, pipes, etc. related to installation of a Fire Hydrant as per Jefferson Parish requirements.

Gate Valves and Valves Boxes where shown or required in accordance with Jefferson Parish Standards, shall be paid for per each.

Fittings, to include bends, crosses, tees, reducers and any other required part to make sound and functional connections shall be paid per pounds.

Long body transitional couplings and expansion/contraction couplings shall be measured and paid for per each.

Air release valves shall be measured and paid for per each.

"Offset Pipe Clamps Assemblies", including pipe clamp, anchor bolts, neoprene pads, nuts, washers, complete in place shall be measured and paid for per each "Offset Pipe Clamps Assembly".

"Concrete Pipe Support Blister" in place and complete, including form work, concrete, reinforcing steel, etc. shall be measured and paid for per each.

Water Service connections shall include all necessary work to reconnect any existing Water Services including relocation of the Water Meters, if necessary.

Estimated Quantity Table

Caminada Bay Bridge, Relocation of Water Infrastructure

ITEM NO.	ITEM	UNIT	QUANTITY
NS-P26-01000	Air Release Valve (1")	EA	1
NS-P26-03000	Concrete Pipe Support Blister	EA	202
NS-P26-05000	Expansion / Contraction Coupling	EA	2
NS-P26-06000	Fire Hydrants***	EA	2
NS-P26-06020	Fittings for Waterlines (DI)	LBS	1,900
NS-P26-07000	Gate Valve and Valve Box (8")	EA	7
NS-P26-07020	Gate Valve and Valve Box (12")	EA	2
NS-P26-12000	Long Body Transitional Coupling (4")	EA	4
NS-P26-12020	Long Body Transitional Coupling (6")	EA	1
NS-P26-12040	Long Body Transitional Coupling (8")	EA	2
NS-P26-15000	Offset Pipe Clamp Assembly	EA	202
NS-P26-18000	Removal & Disposal of existing AC Waterline	LFT	1,220
NS-P26-18020	Removal & Disposal of existing DI Waterline	LFT	4,000
NS-P26-23000	Water Service Connections****	EA	2
NS-P26-23020	Waterline (12" DI)	LFT	4,000
NS-P26-23040	Waterline (12" DI) (Restrained)	LFT	240
NS-P26-23060	Waterline (8" PVC)	LFT	650
NS-P26-23080	Waterline (12" PVC)	LFT	800
NS-P26-23100	Waterline (4" PVC) (Restrained)	LFT	60
NS-P26-23120	Waterline (6" PVC) (Restrained)	LFT	100
NS-P26-23140	Waterline (8" PVC) (Restrained)	LFT	150
NS-P26-23160	Waterline (12" PVC) (Restrained)	LFT	100

*** Contingency Items

Appendix "C"
Jefferson Parish
Department of Engineering
Water Distribution System General Standard Notes *¹

** These notes shall be referenced and shall be included, in their entirety, unedited and unabridged, in all Jefferson Parish Projects as follows:*

- *New subdivisions – attach these notes to plans as Appendix "C"*
- *All other projects – include these notes in Specification Booklets, which include any work related to the Parish Water Distribution System. Insert a copy of these notes on green paper, at the end of the "Water Distribution System Technical Specification" Section of the Specification Booklet. Any Deviations and / or Variations from these General Standard Notes shall be tabulated under the heading of "Deviations From Jefferson Parish Water Standards Notes" and shall be included in the "Water Distribution System Technical Specification" Section of the Specification Booklet.*

1. NOTIFICATION:

CONTRACTORS SHALL NOTIFY THE DEPARTMENT OF WATER AT 736-6743 AND THE DEPARTMENT OF ENGINEERING, INSPECTION DIVISION AT 736-6793, 48 HOURS PRIOR TO ANY FIELD WORK RELATING TO WATER LINES, WATER VALVES, WATER METERS, HYDRANTS, ETC. ALL WATER VALVES 16 INCH AND LARGER SHALL BE OPERATED BY PARISH PERSONNEL. SMALLER VALVES MAY BE OPERATED BY THE CONTRACTOR UNDER THE DIRECT SUPERVISION OF JEFFERSON PARISH PERSONNEL.

THE DEPARTMENT OF ENGINEERING MUST BE GIVEN A MINIMUM OF 48 HOURS NOTICE BEFORE A TAP IS TO BE MADE ON A WATER LINE (FOR METERS, FIRE SERVICES AND FIRE LINES).

WHERE A TIE-IN, FIRE SERVICE OR WATER METER INSTALLATION IS TO BE MADE BY OTHER THAN WATER DEPARTMENT PERSONNEL, THE OWNER, CONTRACTOR OR HIS AGENT SHALL CONTACT THE DEPARTMENT OF ENGINEERING 24 HOURS IN ADVANCE FOR THE INSPECTION OF THE INSTALLATION. THE INSTALLATION SHALL BE INSPECTED AND APPROVED BY THE DEPARTMENT OF ENGINEERING PRIOR TO BACKFILLING.

2. MATERIAL

ALL MATERIALS USED IN JEFFERSON PARISH'S POTABLE WATER DISTRIBUTION SYSTEM SHALL BE IN TOTAL CONFORMANCE WITH THESE STANDARD NOTES,

¹ Jefferson Parish Department of Engineering Water Distribution System General Standard Notes, Originated - January 2002.

OTHER CURRENT JEFFERSON PARISH STANDARDS AND MATERIAL SPECIFICATIONS INCLUDING **“THE DEPARTMENT OF WATER ANNUAL MATERIAL SUPPLY CONTRACT SPECIFICATIONS”**. IN ORDER TO SIMPLIFY “MATERIAL RELATED ISSUES” FOR THE ENGINEERS, CONSULTANTS, CONTRACTORS, SUPPLIERS, AND PARISH INSPECTORS EFFORTS HAVE BEEN MADE THROUGHOUT THESE STANDARDS TO MINIMIZE DISCREPANCIES BETWEEN THESE STANDARD NOTES AND THE **“THE DEPARTMENT OF WATER ANNUAL MATERIAL SUPPLY CONTRACT SPECIFICATIONS”**. IN CASE OF ANY DISCREPANCIES **“THE DEPARTMENT OF WATER ANNUAL MATERIAL SUPPLY CONTRACT SPECIFICATIONS”** WILL GOVERN.

QUALIFIED MANUFACTURERS AND/OR PRODUCTS FOR MOST ITEMS (THE DEPARTMENT OF WATER ANNUAL MATERIAL SUPPLY CONTRACT SPECIFICATIONS SHALL BE REFERENCED FOR ITEMS NOT INCLUDED IN THESE NOTES) HAVE BEEN PROVIDED THROUGHOUT THESE NOTES. THESE QUALIFIED MANUFACTURERS AND/OR PRODUCT INFORMATION MAY BE MODIFIED SEMIANNUALLY MAINLY BASED ON REVISIONS TO **“THE DEPARTMENT OF WATER ANNUAL MATERIAL SUPPLY CONTRACT SPECIFICATIONS”**. THESE MODIFICATIONS MAY OCCUR ONCE A YEAR OR ONCE EVERY TWO YEARS DEPENDING UPON EACH SPECIFIC CONTRACT PERIOD. NEW PRODUCTS MAY BE PRESENTED TO THE JEFFERSON PARISH ENGINEERING AND WATER DEPARTMENTS SIMULTANEOUSLY FOR EVALUATION. ANY PRODUCT FOUND TO MEET JEFFERSON PARISH STANDARDS WILL BE INCLUDED IN THESE STANDARDS WHEN SEMIANNUAL REVISIONS ARE MADE. FINAL DECISION FOR ACCEPTANCE OF ALL MATERIALS WILL BE MADE BY THE JEFFERSON PARISH DEPARTMENT OF WATER.

3. NON CONFORMANCE

THE DEPARTMENT OF ENGINEERING HAS THE RIGHT TO REJECT ANY AND ALL EQUIPMENT, OR WORK, WHICH DOES NOT CONFORM TO JEFFERSON PARISH STANDARDS AND SPECIFICATIONS. ANY WORK SO REJECTED SHALL BE REDONE BY THE CONTRACTOR AT HIS OWN EXPENSE.

4. VERIFICATION OF EXISTING UTILITIES PRIOR TO ORDERING MATERIALS

THE CONTRACTOR SHALL VERIFY THE SIZE AND MATERIAL OF ALL EXISTING UTILITIES BEFORE ORDERING MATERIALS. JEFFERSON PARISH WILL NOT REIMBURSE THE CONTRACTOR FOR ANY MATERIAL RE-STOCKING FEES.

5. DOMESTICITY

A. PURPOSE OF THIS SECTION

THIS SECTION INCLUDES INFORMATION AND PROVIDES ANSWERS TO SOME FREQUENTLY ASKED QUESTIONS REGARDING JEFFERSON PARISH DOMESTICITY POLICY.

B. VALVES AND HYDRANTS

ALL DUCTILE IRON/CAST IRON VALVES AND HYDRANTS SHALL BE OF DOMESTIC UNITED STATES OF AMERICA MANUFACTURE. NO DUCTILE IRON/CAST IRON VALVES AND HYDRANTS MANUFACTURED OUTSIDE OF THE UNITED STATES OF AMERICA WILL BE ALLOWED.

C. APPURTENANCES

BY POLICY, DOMESTIC AS WELL AS GLOBALLY SOURCED (FOREIGN) APPURTENANCES {PIPE RESTRAINERS (MECHANICAL JOINT, PIPE TO PIPE, FLANGE ADAPTERS, BELL HARNESSSES, ETC.), COUPLINGS, TAPPING AND REPAIR CLAMPS AND SLEEVES, SERVICE CONNECTORS AND SADDLES, ETC.} MAY BE PRESENTED TO THE JEFFERSON PARISH ENGINEERING AND WATER DEPARTMENTS SIMULTANEOUSLY FOR EVALUATION AS MENTIONED IN SECTION 2, ABOVE. ALL APPURTENANCES SHALL BE MANUFACTURED IN STRICT ACCORDANCE WITH THE LATEST APPLICABLE AWWA, ANSI AND ASTM STANDARDS FOR POTABLE WATER. IN ADDITION TO THESE REQUIREMENTS, ALL GLOBALLY SOURCED APPURTENANCES SHALL BE MANUFACTURED AT AN ISO (INTERNATIONAL ORGANIZATION FOR STANDARDS) REGISTERED MANUFACTURER, WHICH MANUFACTURER SHALL HAVE CURRENT ISO 9001, UL AND FM CERTIFICATIONS FOR STANDARDIZATION FOR SUCH APPURTENANCES. CURRENTLY JEFFERSON PARISH DOES NOT HAVE ANY FOREIGN APPURTENANCES ON THE APPROVED LIST WITH THE EXCEPTION OF HYMAX COUPLINGS.

D. FITTINGS

DOMESTIC AS WELL AS GLOBALLY SOURCED (FOREIGN) DUCTILE IRON FITTINGS SHALL BE ALLOWED. ALL FITTINGS SHALL BE IN STRICT ACCORDANCE WITH THE LATEST APPLICABLE AWWA, ANSI (ANSI/AWWA C153/A21.53, ANSI/AWWA C110/A21.10, ANSI/AWWA C111/A21.11, ANSI/AWWA C104/A21.4, ETC.) AND ASTM STANDARDS FOR POTABLE WATER. IN ADDITION TO THESE REQUIREMENTS, THE GLOBALLY SOURCED FITTINGS SHALL ALSO BE MANUFACTURED BY AN ISO (INTERNATIONAL ORGANIZATION FOR STANDARDIZATION) REGISTERED

MANUFACTURER, WHICH MANUFACTURER SHALL HAVE CURRENT ISO 9001 CERTIFICATION FOR STANDARDIZATION FOR FITTING PRODUCTS.

E. **ISO REGISTERED MANUFACTURER**

THESE MANUFACTURING FACILITIES MUST BE COVERED UNDER PERIODIC AUDITS BY THIRD PARTY ACCREDITATION BODIES FOR EVALUATIONS. THESE EVALUATIONS SHALL INCLUDE MANUFACTURING PROCESSES, QUALITY CONTROL, CORRECTIVE AND PREVENTIVE ACTIONS, AND DOCUMENT CONTROL. IN ADDITION, DISTRIBUTION CENTERS MUST BE AUDITED BY THIRD PARTY APPROVAL AGENCIES FOR PERIODIC CONFIRMATION TESTS AND SURVEILLANCE AUDITS. THESE PERIODIC CONFIRMATION TESTS AND SURVEILLANCE AUDITS SHALL DOCUMENT CONTINUATION OF PRODUCT APPROVALS OF EVERY SPECIFIC MANUFACTURING FACILITY BY AUDITING THE ENTIRE QUALITY SYSTEMS INCLUDING DESIGN, INFRASTRUCTURE, SYSTEM IMPLEMENTATION, DISTRIBUTION, TRAINING, QUALITY CONTROL AND ASSURANCE, AND DOCUMENT CONTROL. ALL FITTINGS AND APPURTENANCES MUST BE MANUFACTURED IN ACCORDANCE WITH NSF61.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND FURNISHING JEFFERSON PARISH WITH WRITTEN PROOF THAT ALL GLOBALLY SOURCED (FOREIGN) FITTINGS AND APPURTENANCES MEET THE AFOREMENTIONED AWWA, ANSI, AND ASTM STANDARDS. THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING THAT THESE FITTINGS AND APPURTENANCES ARE MANUFACTURED AT AN ISO REGISTERED MANUFACTURER WITH CURRENT 9001 CERTIFICATION FOR FITTINGS AND APPURTENANCE PRODUCTS AND SHALL FURNISH JEFFERSON PARISH WITH WRITTEN PROOF OF THIS REGISTRATION AND CERTIFICATION. ALL WRITTEN PROOF SHALL BE FURNISHED IMMEDIATELY AFTER EXECUTION OF THE CONTRACT DOCUMENTS AND PRIOR TO ORDERING FITTINGS AND ANY APPURTENANCE PRODUCTS.

6. **WATER LINES:**

A. **MINIMUM SIZE**

THE MINIMUM ACCEPTABLE SIZE FOR NEW WATER LINES IS 8 INCHES IN DIAMETER.

B. DEPTH OF COVER

NEW WATER LINES 10 INCHES AND SMALLER SHALL HAVE A MINIMUM OF 3 FEET AND A MAXIMUM OF 4 FEET OF COVER. WATER LINES 12 INCHES AND LARGER SHALL HAVE A MINIMUM OF 4 FEET AND A MAXIMUM OF 5 FEET OF COVER. DEPTHS OUTSIDE THESE MINIMUMS AND MAXIMUMS WILL NOT BE ACCEPTABLE.

C. BACKFILL

BACKFILL ALL TRENCHES WITHIN STREET RIGHT-OF-WAY WITH RIVER SAND.

D. PVC PIPE

POLYVINYL CHLORIDE (PVC) PRESSURE PIPE 4 INCHES THROUGH 12 INCHES IN DIAMETER SHALL MEET AWWA SPECIFICATION C-900, MINIMUM CLASS 150, DR 18. PVC PIPE 14 INCHES THROUGH 30 INCHES IN DIAMETER SHALL MEET AWWA SPECIFICATION C-905, MINIMUM CLASS 165, DR 25. PVC PIPE WILL NOT BE USED FOR WATER LINES LARGER THAN 30 INCHES.

E. DUCTILE IRON PIPE

ALL DUCTILE IRON PIPE SHALL CONFORM TO ANSI/AWWA A21.51/C151, ANSI/AWWA A21.50/C150 AND “SHALL BE MINIMUM THICKNESS CLASS 51 OR GREATER” OR “SHALL BE MINIMUM PRESSURE CLASS 200 OR GREATER” DUCTILE IRON PIPE IN ACCORDANCE WITH TABLE BELOW”. DUCTILE IRON PIPE SHALL HAVE A FACTORY CEMENT MORTAR LINING AS PER ANSI/AWWA A21.4/C104, AND FACTORY ASPHALTIC EXTERIOR COATING. POLYETHYLENE ENCASEMENT IN ACCORDANCE WITH ANSI/AWWA C105/A21.5 (MINIMUM 8 MIL THICK) SHALL BE REQUIRED FOR ALL DUCTILE IRON PIPES.

DUCTILE IRON PIPE

**Nominal Thicknesses for Standard Pressure
Classes of Ductile Iron Pipe**

Size in.	Outside Diameter in.	Pressure Class				
		150	200	250	300	350
		Nominal Thickness -- in.				

3	3.96	-	-	-	-	0.25*
4	4.80	-	-	-	-	0.25*
6	6.90	-	-	-	-	0.25*
8	9.05	-	-	-	-	0.25*
10	11.10	-	-	-	-	0.26
12	13.20	-	-	-	-	0.28
14	15.30	-	-	0.28	0.30	0.31
16	17.40	-	-	0.30	0.32	0.34
18	19.50	-	-	0.31	0.34	0.36
20	21.60	-	-	0.33	0.36	0.38
24	25.80	-	0.33	0.37	0.40	0.43
30	32.00	0.34	0.38	0.42	0.45	0.49
36	38.30	0.38	0.42	0.47	0.51	0.56
42	44.50	0.41	0.47	0.52	0.57	0.63
48	50.80	0.46	0.52	0.58	0.64	0.70
54	57.56	0.51	0.58	0.65	0.72	0.79
60	61.61	0.54	0.61	0.68	0.76	0.83
64	65.67	0.56	0.64	0.72	0.80	0.87

**Calculated thicknesses for these sizes and pressure ratings are less than those shown above. Presently these are the lowest nominal thicknesses available in these sizes.*

Pressure classes are defined as the rated water working pressure of the pipe in psi. The thicknesses shown above are adequate for the rated water working pressure plus a surge allowance of 100 psi. Calculations are based on a minimum yield strength in tension of 42,000 psi and 2.0 safety factor times the sum of working pressure and 100 psi surge allowance.

Thickness can be calculated for rated water working pressure and surges other than the above.

Ductile Iron pipe is available for water working pressures greater than 350 psi.

Pipe is available with thicknesses greater than Pressure Class 350.

F. **STREET CROSSINGS**

JEFFERSON PARISH DEPARTMENT OF ENGINEERING MAY REQUIRE WATER LINES TO BE INSTALLED IN STEEL CASINGS WHEN CROSSING MAJOR *(To be defined by the department of engineering)* STREETS.

WHEN PIPE IS INSTALLED IN CASINGS, COMMERCIALY FABRICATED CASING SPACERS MUST BE USED TO PREVENT DAMAGE TO PIPE AND BELL JOINTS DURING INSTALLATION AND TO PROVIDE PROPER LONG-TERM LINE SUPPORT. USE OF WOODEN SKIDS WILL NOT BE PERMITTED. PIPES IN CASINGS SHALL BE RESTRAINED AND SHALL NOT REST ON BELLS. CASING SPACERS MUST PROVIDE SUFFICIENT HEIGHT TO PERMIT CLEARANCE BETWEEN BELL JOINTS AND CASING WALLS (ALL CASING PIPE SHALL HAVE AN INSIDE CLEAR DIMENSION AT LEAST 2" GREATER THAN THE MAXIMUM OUTSIDE DIMENSION OF THE CARRIER PIPE BELL OR MECHANICAL JOINT RESTRAINTS). SPACE BETWEEN THE CASING AND THE CARRIER PIPE SHOULD NOT BE BACKFILLED. JEFFERSON PARISH APPROVED END CASING SEAL WITH STAINLESS STEEL BANDS SHOULD BE USED TO SEAL THE ENDS OF THE CASINGS.

G. **CANAL CROSSINGS**

LONG-SPAN DUCTILE IRON PIPE SHALL BE USED AS PER MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS FOR ALL CANAL CROSSINGS.

ALL EXPOSED FITTINGS AND JOINTS SHALL BE FLANGED WITH ***TORUSEAL*** "OR ***APPROVED EQUAL***" GASKETS. UNDERGROUND FITTINGS AND JOINTS SHALL HAVE RESTRAINED MECHANICAL JOINTS. ALTERNATIVE DESIGNS MAY BE CONSIDERED IF JUSTIFIED BY SPECIAL FIELD CONDITIONS.

CANAL CROSSINGS SHALL BE SUPPORTED BY CONCRETE PILES UNLESS OTHERWISE PERMITTED BY THE JEFFERSON PARISH DEPARTMENT OF ENGINEERING.

H. **HDPE PIPE (AND FITTINGS) –**

HIGH DENSITY POLYETHYLENE (PE) PIPE (*and fittings*) SHALL CONFORM TO CURRENT AWWA STANDARD C906, POLYETHYLENE (PE) PRESSURE PIPE AND FITTINGS, 4 IN. THROUGH 63 IN., FOR WATER DISTRIBUTION. (PE) PIPE (*and fittings*) SHALL CONFORM TO CURRENT REQUIREMENTS OF ASTM D3350 AND ASTM D2337 AND ALL PERTINENT ASTM AND ANSI SPECIFICATIONS FOR SPECIFYING, INSTALLATION AND ACCEPTANCE (PRESSURE TESTING AND DISINFECTING) OF WATER DISTRIBUTION SYSTEMS.

POLYETHYLENE PIPING SHALL BE JOINTED BY THERMAL BUTT-FUSION, FLANGE ASSEMBLIES OR POLYETHYLENE MECHANICAL JOINT ADAPTERS BASED UPON MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.

POLYETHYLENE (PE) PIPE (*and fittings*) SHALL BE INSTALLED PER THE BURIAL-DESIGN GUIDANCE OF ASTM D2321 FOR THERMOPLASTIC PIPE.

POLYETHYLENE (PE) PIPE (*and fittings*) MATERIAL SHALL MEET THE REQUIREMENTS OF TYPE "III", CLASS "C", CATEGORY "5", GRADE "P34" AS DEFINED IN ASTM D1248, WITH STANDARD GRADE RATING OF 1600 PSI AT 73 DEGREES "F" AND HAVE A PPI RECOMMENDED DESIGNATION OF "PE 3408".

POLYETHYLENE (PE) PIPE (*and fittings*) SHALL BE SPECIFIED BY NOMINAL DUCTILE IRON PIPE SIZE AND SHALL MEET THE REQUIREMENTS OF STANDARD DIMENSION RATIO (SDR) 17 FOR DIRECT BURIAL. PIPES USED FOR DIRECTIONAL BORES, STANDARD JACKING AND BORING, HIGHWAY AND RAILWAY CROSSINGS SHALL BE SDR-11 OR GREATER STRENGTH IF REQUIRED BY SPECIAL DESIGN.

I. POLYETHYLENE (PE) PLASTIC TUBING

ALL POLYETHYLENE (PE) PLASTIC TUBING, ¾ INCH THROUGH 2 INCHES SHALL BE PE 3408, DR9, CONFORMING TO ASTM D2737. THE PE MATERIAL SHALL MEET OR EXCEED THE REQUIREMENTS OF D1248 FOR TYPE III, GRADE "P34", CLASS "C" MATERIAL. ALL BRONZE/BRASS FITTINGS, CONNECTORS, CORPORATION STOPS AND ANY OTHER APPLICABLE AND APPROPRIATE APPURTENANCES USED IN CONJUNCTION WITH PE TUBING SHALL BE OF DOMESTIC UNITED STATES OF AMERICA MANUFACTURE AND MEET ALL CRITERIA SET FORTH BY AWWA, ASTM AND ANSI FOR USE OF THESE ITEMS IN POTABLE WATER DISTRIBUTION SYSTEMS.

7. FITTINGS

FITTINGS SHALL BE DUCTILE IRON FLANGED, MECHANICAL OR BOLTLESS RESTRAINED JOINTS MEETING ANSI/AWWA C110/A21.10 AND ANSI/AWWA C111/A21.11, CLASS 250, OR ANSI/AWWA C153/A21.53, CLASS 350, COMPACT STANDARD. ALL HYDRANT TEES SHALL BE SWIVEL TYPE.

DUCTILE IRON FITTINGS SHALL HAVE EITHER A FACTORY CEMENT MORTAR LINING AS PER ANSI/AWWA A21.4/C104, AND FACTORY ASPHALTIC EXTERIOR COATING, OR FACTORY APPLIED FUSION BONDED EPOXY COATING INSIDE AND OUT, IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF AWWA C-550, PROTECTIVE EPOXY COATINGS.

ALL FITTINGS USED WITH PVC C-900 PIPES SHALL BE "FACTORY APPLIED FUSION BONDED EPOXY COATED" (INSIDE AND OUTSIDE).

POLYETHYLENE ENCASEMENT IN ACCORDANCE WITH ANSI/AWWA C105/A21.5 (MINIMUM 8 MIL THICK) SHALL BE REQUIRED FOR ALL DUCTILE IRON PIPES

AND FITTINGS WITH THE EXCEPTION OF "FACTORY APPLIED FUSION BONDED EPOXY COATED" FITTINGS WHICH ARE USED WITH PVC C-900 PIPES MAY NOT REQUIRE POLYETHYLENE ENCASEMENT.

FITTINGS SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA OR BE MANUFACTURED BY STAR PIPE PRODUCTS (ISO EXPIRATION DATE: MAY, 2010) OR SIGMA (ISO EXPIRATION DATE: DECEMBER, 2008).

8. MINIMUM PIPE LENGTH

THERE SHALL BE A MINIMUM OF 24 INCHES OF STRAIGHT PIPE BEFORE, AFTER OR IN BETWEEN VALVES, FITTINGS, ETC.

9. PIPE AND FITTING JOINT STYLE:

A. DUCTILE IRON

DUCTILE IRON PIPES AND FITTINGS SHALL BE FLANGED (AERIAL/BRIDGE CROSSINGS), PUSH-ON, MECHANICAL, RESTRAINED MECHANICAL OR BOLTLESS RESTRAINED JOINTS MEETING ANSI/AWWA A21.51/C151 AND ANSI/AWWA A21.50/C150.

B. PVC

PUSH-ON JOINTS SHALL CONSIST OF AN INTEGRAL BELL WITH A FACTORY INSTALLED "LOCKED-IN" ELASTOMERIC GASKET. THE SPIGOT END OF EACH JOINT SHALL BE FACTORY BEVELED. ELASTOMERIC GASKET SHALL MEET THE REQUIREMENTS OF ASTM "D1869" AND "F-477". RESTRAINING SHALL BE ACCOMPLISHED BY USE OF DUCTILE IRON MECHANICAL JOINTS RESTRAINER GLANDS OR BELL RESTRAINT HARNESS WITH STAINLESS STEEL HARDWARE.

C. POLYETHYLENE

POLYETHYLENE PIPING SHALL BE JOINTED BY THERMAL BUTT-FUSION, FLANGE ASSEMBLIES OR POLYETHYLENE MECHANICAL JOINT ADAPTERS BASED UPON MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS

10. RESTRAINED JOINTS

ALL VALVES, FITTINGS, PLUGS, REDUCERS, ETC., SHALL HAVE RESTRAINED JOINTS. HYDRANTS, HYDRANT VALVES AND HYDRANT TEES SHALL BE

RESTRAINED. UNLESS FIELD CONDITIONS AND / OR SPECIAL DESIGN CONDITIONS NECESSITATE, USE OF THRUST BLOCKING SHALL NOT BE PERMITTED. THRUST BLOCKS ARE PERMITTED ONLY WHEN ADEQUATE LENGTH OF PIPE CANNOT BE RESTRAINED DUE TO FIELD CONDITIONS AND/OR FOR TEMPORARY CONSTRUCTION. LENGTH OF RESTRAINED PIPES SHALL BE PER MANUFACTURER'S REQUIREMENTS. JEFFERSON PARISH WATER STANDARD DRAWINGS PROVIDE SOME MINIMUM LENGTHS FOR RESTRAINED PIPES IN OFFSETS. THESE MINIMUM REQUIREMENTS SHALL ONLY BE USED IF THE MANUFACTURER'S REQUIRED RESTRAINED LENGTHS, BASED ON SOIL TYPE, TRENCH TYPE, TEST PRESSURE, SAFETY FACTOR, DEPTH OF BURY, FITTING TYPE, NOMINAL SIZE, PIPE MATERIAL, ETC. ARE LESS THAN THESE MINIMUM REQUIREMENTS.

11. PAINT (EXPOSED WATER LINES)

EXPOSED WATER LINES, SUCH AS AERIAL/BRIDGE CROSSINGS OVER DRAINAGE CANALS SHALL HAVE FACTORY APPLIED PRIMER WITH FIELD-FINISH SILVER ALUMINUM PAINT {ALUMINUM, QUICK DRY, 520 ENAMEL, IN GALLON CAN, BLP #520-26}. PRIMER AND PAINT MATERIAL SHOULD BE FULLY COMPATIBLE WITH THE EXTERNAL ENVIRONMENT AND IN FULL CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS FOR THE INTENDED PURPOSE.

12. TAPPING SLEEVES

TAPPING SLEEVES FOR PVC, AC AND DUCTILE IRON SHALL BE MANUFACTURED OF 18-8 304 STAINLESS STEEL WITH STAINLESS STEEL FLANGE. TAPPING SLEEVES FOR PRE-STRESSED CONCRETE CYLINDER PIPE SHALL BE IN ACCORDANCE WITH AWWA MANUAL M-2. ALL NUTS AND BOLTS SHALL BE STAINLESS STEEL WITH ANTI-SEIZE COMPOUND OR HEAT TREATED TEFLON COATED COR-TEN. TAPPING SLEEVES SHALL BE MANUFACTURED BY ROMAC, CASCADE OR JCM.

13. TAPPING VALVES

TAPPING VALVES SHALL BE MANUFACTURED BY MUELLER, CLOW, M&H OR KENNEDY. VALVES SHALL HAVE AN OUTLET AND CONNECTION SUITABLE FOR MAKE UP, TAPPING SLEEVE AND ADJACENT PIPE.

14. SERVICE SADDLES

SERVICE SADDLES FOR USE ON SERVICE TAPS AND WATER LINE BLOW-OFF INSTALLATIONS SHALL BE CASCADE STYLE CS12, SMITH-BLAIR 391, ROMAC STYLE 202BS. SADDLES WITH "U-BOLTS" SHALL NOT BE USED WITH PVC PIPE.

15. PIPE RESTRAINERS (PIPE RESTRAINTS)

A. APPLICABLE STANDARDS

ALL PIPE RESTRAINERS SHALL CONFORM TO THE FOLLOWING STANDARDS AND SPECIFICATIONS FOR MATERIAL, APPLICATION, COMPATIBILITY, COATING, ETC. AS APPLICABLE:

- ANSI/AWWA C110/A21.10
- ANSI/AWWA C111/A21.11
- ANSI/AWWA C153/A21.53
- AWWA C600
- ASTM A536, 65-45-12
- ASTM D2774
- ASTM E8

B. COATING

PIPE RESTRAINERS SHALL BE COATED BY A "FACTORY APPLIED FUSION BONDED EPOXY". BOTH "*FUSION-BOND EPOXY POWDER COATING*" AND "*ELECTROCOATING*"—IN STRICT ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS, REQUIREMENTS AND SPECIFICATIONS—SHALL BE ACCEPTABLE.

a. FUSION-BOND EPOXY POWDER COATING

- *FASTENERS AND LUGS* SHALL BE COATED WITH A FLUOROPOLYMER MATRIX CONSISTING OF LUBRICATING COMPOUNDS, UV STABILIZERS AND COLORING AGENTS OR PIGMENTS APPLIED TO A SUBSTRATE PREPARED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THIS COATING SHALL BE LOW VOC, RESIN BONDED AND THERMALLY CURED, SINGLE FILM, DRY LUBRICANT, PRIMARILY FORMULATED FOR USE ON FASTENERS. THE COATING SHALL BE DESIGNED TO PREVENT CORROSION AND IMPROVE TORQUE TENSION PERFORMANCE WHEN APPLIED TO FASTENERS. THE LUBRICITY OF THE COATING SHALL BE PROVIDED BY PROPER DISPERSION OF POLYTETRAFLUOROETHYLENE (PTFE) {WELL KNOWN BRAND NAME "TEFLON"}. TOTAL COATING THICKNESS SHALL BE 0.7 TO 1.5 MIL.
- *GLANDS* SHALL BE COATED WITH A THERMOSETTING EPOXY RESIN COATING APPLIED TO A SUBSTRATE PREPARED IN ACCORDANCE WITH THE COATING MANUFACTURER'S RECOMMENDATIONS. BEFORE APPLYING THE COATING, THE

SUBSTRATE MATERIAL SHALL BE PREHEATED TO ENHANCE ATTACHMENT OF THE COATING MATERIAL. THE POWDER COATING MATERIAL SHALL BE SPRAYED OR APPLIED USING AN ELECTROSTATIC SPRAY OR FLUIDIZED BED. WHEN SPRAYING A DIFFERENTIAL VOLTAGE SHALL BE APPLIED TO THE COATING AND PART TO PROMOTE ATTRACTION OF THE COATING PARTICULATE. AFTER COATING, THE PART SHALL BE PLACED IN AN OVEN TO FULLY BOND AND CURE THE EPOXY. ANY TOUCH POINTS OR HOLIDAYS SHALL BE PATCHED TO INSURE 100% COVERAGE. COATING THICKNESS TO BE 8 MILS TO 16 MILS.

b. ELECTROCOATING

- ELECTROCOATED FASTENERS, LUGS, GLANDS, ETC. SHALL BE APPLIED PER SAMPLE SPECIFICATIONS FOR ELECTROCOATING INCLUDED IN THIS SECTION.

*THE PURPOSE OF PRESENTING THE FOLLOWING SAMPLE SPECIFICATIONS ON **FUSION-BONDED EPOXY POWDER COATING** AND **ELECTROCOATING** IS TO ESTABLISH CERTAIN MINIMUM STANDARDS OF QUALITY AND SUBSEQUENTLY IDENTIFYING PRODUCTS OF EQUAL QUALITY FOR "MATERIAL APPROVAL PROCESS". IF AND WHERE CERTAIN BRAND NAMES AND OR MATERIALS ARE MENTIONED, "**THE APPROVED EQUAL**" PHRASE WILL APPLY.*

c. FUSION-BOND EPOXY POWDER COATING SAMPLE SPECIFICATIONS

FUSION-BONDED EPOXY POWDER COATING SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS OR APPROVED EQUAL:

FUNCTIONAL CHARACTERISTICS - THE COATING POWDER SHALL HAVE THE FUNCTIONAL CHARACTERISTICS LISTED IN TABLE 1 WHEN APPLIED AT 1.5 – 4.0 MILS (3.0 MILS NOMINAL).

PROPERTIES	TEST METHOD	ACCEPTABLE VALUE
FLEXIBILITY	ASTM D522	180°, 0.250" MANDREL
PENCIL HARDNESS	ASTM D3363	2H MINIMUM
DIRECT/REVERSE IMPACT	ASTM D2794	≥ 160 IN. LBS.
CROSSHATCH ADHESION	ASTM D3359	100 % PASS 4B
SALT SPRAY RESISTANCE	ASTM B117	≥ 500 HOURS ON LESS THAN 1/8 INCHES UNDERCUT FROM X SCRIBE MARK
HUMIDITY RESISTANCE	ASTM D2247	≥ 1000 HOURS, NO BLISTERING
WEATHERABILITY	QUV-A-340	≥ 500 HOURS WITH ≤ 2 DELTA E (CIEL*A*B*) COLOR SHIFT OR 85-90% GLOSS RETENTION
SOLVENT RESISTANCE	PCI TEST PROCEDURE # 8	≥ 30 DOUBLE RUBS
POWDER STORAGE STABILITY	N/A	6 MOS. @ 70 ⁰ F
ABRASION RESISTANCE	ASTM D4060, CS-10 WHEELS	≤ 0.037 GRAMS LOSS PER 1000 CYCLES

TABLE 1 FUNCTIONAL CHARACTERISTICS

APPEARANCE - THE COATING POWDER USED IN THIS APPLICATION SHALL HAVE THE APPEARANCE CHARACTERISTICS LISTED IN TABLE 2.

PROPERTIES	TEST METHOD	ACCEPTABLE VALUE
SMOOTHNESS	PCI SMOOTHNESS STANDARDS	CLASS 5 (MEDIUM ORANGE PEEL)
GLOSS 60°	ASTM D523	80% ± 5%
COLOR	CIELAB	TO MATCH EBAA VISUAL STANDARD DE < 1.0
COLOR FASTNESS	ASTM G-154	≥ 120 HOURS NO COLOR CHANGE USING XENON ARC LIGHT SOURCE

TABLE 2 FINISH APPEARANCE CHARACTERISTICS

THE POWDER COATING SHOULD EXHIBIT A UNIFORM APPEARANCE WITHIN THE SPECIFIED FILM THICKNESS RANGE AND BE FREE OF DIRT, PINHOLING AND OTHER SURFACE DEFECTS. FURTHER, THE POWDER COATING SHALL BE RESISTANT TO VOIDS CAUSED BY OUTGASSING INHERENT IN CAST METAL PRODUCTS.

{THE COATING SHALL BE A FLUOROPOLYMER- METRIX CONSISTING OF LUBRICATING COMPOUNDS, UV STABILIZERS, AND COLORING AGENTS OR PIGMENTS, APPLIED TO A SUBSTRATE PREPARED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. THIS COATING IS TO BE LOW VOC, RESIN BONDED AND THERMALLY CURED, SINGLE FILM, DRY LUBRICANT, PRIMARILY FORMULATED FOR USE ON FASTENERS. THE COATING SHALL BE DESIGNED TO PREVENT CORROSION AND FACILITATE MAKE-UP TORQUE. THE LUBRICITY OF THE COATING SHALL PROVIDE A PROPER DISPERSION OF PTFE.

COATING IS TO BE APPLIED TO THE COMPONENT SUBSTRATE PREPARED IN ACCORDANCE WITH THE COATING MANUFACTURERS RECOMMENDATION, INCLUDING BUT NOT LIMITED TO, A CLEANER WASH, PHOSPHATING, RINSE, AND DRY PREPARATION. THE SPECIFIED COATING SHALL BE APPLIED AT A NOMINAL THICKNESS OF .35 MILS PER COAT, WITH A TOTAL OF 0.7 TO 1 MIL TOTAL DRY FILM THICKNESS AFTER TWO COATS ON ALL WEDGE AND WEDGE ACTUATOR COMPONENTS. NON-CRITICAL COMPONENTS SUCH AS THE TORQUE LIMITING TWIST OFF NUTS SHALL REQUIRE ONLY ONE COAT AS SPECIFIED ABOVE, AS THESE ITEMS ARE DISCARDED UPON USE.}}

d. ELECTROCOATING SAMPLE SPECIFICATIONS

ELECTROCOATING SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

GLANDS SHALL BE EPOXY COATED VIA THE ELECTRO-COAT (E-COAT) PROCESS. THE E-COAT PROCESS SHALL BEGIN WITH A PRE-TREATMENT SYSTEM THAT INCLUDES A CLEANING STAGE, AND A PHOSPHATE SURFACE CONDITIONING IN ADDITION TO VARIOUS RINSING STAGES. ALL PARTS SHALL THEN BE IMMERSSED IN A HIGH QUALITY CATHODIC EPOXY. A DIFFERENTIAL VOLTAGE THROUGH THE PART AND THE COATING BATH SHALL BE USED TO ATTRACT THE POSITIVELY CHARGED COATING SOLIDS TO THE PRE-TREATED METAL SURFACE. THE COATED PART SHALL THEN BE CURED FOR 20 MINUTES AT 350 °F.

THE SELF-LIMITING ELECTRO-COATING PROCESS SHALL RESULT IN FILM THICKNESSES THAT VARY FROM 0.4 TO 1.5 MILS. THE RESULTING FILM PROPERTIES AND CORROSION RESISTANCE SHALL BE AS SPECIFIED IN THE TABLE BELOW:

E-coat Film Properties

<i>Property</i>	<i>Test Method</i>	<i>Performance</i>
Film Thickness	None	0.4-1.5 mils
Gloss – 60 Degree	ASTM D523-89	50-80
Pencil Hardness	ASTM D3363-00	2H minimum
Direct Impact	ASTM D2794-93	100 in-lb minimum
Reverse Impact	ASTM D2794-93	60 in-lb minimum
Cross-hatch Adhesion	ASTM D3359-97	4B-5B
Humidity	ASTM D1735-99	500 hr. minimum
Water Immersion	ASTM D870-90	250 hr. minimum
Gravelometer	GM 9508 P	6 minimum
Rust Spot	GM 9632P	40 Rust Spot (avg.)
CORROSION RESISTANCE:		
Salt Spray 500 Hours	ASTM B117-97	0 mm
Salt Spray 1000 Hours	ASTM B117-97	0-1 mm
20 Cycle Scab	GM9511P	0-1 mm

THE EPOXY SHALL PROVIDE EXCELLENT EDGE COVERAGE AND SUPERIOR CORROSION RESISTANCE WITHOUT THE USE OF HEAVY METALS. THE COATING SHALL BE FREE FROM LEAD. THE VOLATILE ORGANIC COMPOUND (VOC) CONTENT SHALL BE LESS THAN 0.7 LBS/GALLON.

C. **MATERIAL**

MECHANICAL JOINT PIPE RESTRAINERS SHALL BE MANUFACTURED AND MADE OF GRADE 60-42-12 OF DUCTILE IRON, WHICH EXCEEDS MINIMUM REQUIREMENTS OF "ASTM A536". ALL THREADED PARTS SUCH AS BOLTS, NUTS, RODS, WEDGES, WEDGE ACTUATORS, ETC. SHALL BE HEAT TREATED TEFLON COATED COR-TEN. WEDGES AND WEDGE ACTUATORS MAY BE ELECTROCOATED.

D. **MANUFACTURER**

MECHANICAL JOINT PIPE RESTRAINERS SHALL BE COATED BY A "FACTORY APPLIED FUSION BONDED EPOXY" IN ACCORDANCE WITH THESE SPECIFICATIONS AND SHALL BE "EBAA IRON MEGALUG", "FORD UNI-FLANGE", "ROMAC ROMAGRIP".

16. **COUPLINGS**

LONG BODY TRANSITIONAL COUPLINGS IN ACCORDANCE WITH THE FOLLOWING TABLE, SHALL BE USED FOR CONNECTING PROPOSED/NEW PIPES TO EXISTING PIPES OF DIFFERENT MATERIAL, FOR EXAMPLE, "**PVC C-900**" TO "**AC**". LONG BODY TRANSITIONAL COUPLINGS SHALL BE "HYMAX" COUPLINGS.

NOMINAL PIPE SIZE, INCHES.	TRANSITION COUPLING MINIMUM LENGTH, INCHES.
4, 6, 8	12
10, 12, 14, 16	18
18, 20, 24, 30, 36	24

17. **BOLTS AND NUTS**

ALL BOLTS AND NUTS SHALL BE STAINLESS STEEL WITH ANTI-SEIZE COMPOUND OR HEAT TREATED TEFLON COATED COR-TEN.

18. **FIRE HYDRANTS:**

A. **EASTBANK FIRE HYDRANTS**

EASTBANK FIRE HYDRANTS SHALL BE THREE WAY COMPRESSION TYPE (OPENING AGAINST PRESSURE) CONFORMING TO AWWA C-502. HYDRANTS

Jefferson Parish Department of Engineering Water Distribution System General Standard Notes, Green Sheets, Appendix "C"
Revised: 06 / 10/ 2008,

SHALL HAVE A 5 ¼ INCH INLET CONNECTION WITH TWO 2 ½ INCH NOZZLES AND ONE 4 ¼ INCH PUMPER NOZZLE. ALL NOZZLES SHALL HAVE THE NEW ORLEANS SEWERAGE AND WATER BOARD THREAD STANDARDS. HYDRANTS SHALL HAVE A 1 1/8 INCH OPERATING NUT. RIGHT HAND OPENING (CLOCKWISE). ALL HYDRANTS FOR THE EAST JEFFERSON WATER DISTRICT SHALL BE MUELLER (NO. A423), KENNEDY GUARDIAN (MODEL K81A) OR AMERICAN DARLING (MODEL B-84-B).

B. WESTBANK FIRE HYDRANTS

WESTBANK FIRE HYDRANTS SHALL BE THREE WAY, COMPRESSION TYPE (OPENING AGAINST PRESSURE) CONFORMING TO AWWA C-502. HYDRANTS SHALL HAVE A 5 ¼ INCH INLET CONNECTION WITH TWO 2 ½ INCH HOSE NOZZLES AND ONE 4 ¼ INCH PUMPER NOZZLE. ALL NOZZLES SHALL HAVE NATIONAL STANDARD THREADS. HYDRANTS SHALL HAVE A 1 ¼ INCH OPERATING NUT. LEFT HAND OPENING (COUNTER-CLOCKWISE). ALL HYDRANTS FOR THE WEST JEFFERSON WATER DISTRICT SHALL BE MUELLER SUPER CENTURION 250 (MUELLER NO. A423), KENNEDY GUARDIAN (MODEL K81A) OR AMERICAN DARLING (MODEL B-84-B).

C. MINIMUM REQUIRED FIRE FLOW FOR PROPOSED SUBDIVISIONS

MINIMUM REQUIRED FIRE FLOW FOR RESIDENTIAL SUBDIVISION FIRE HYDRANTS SHALL BE “1000 GPM[†]” @ “20 PSI” RESIDUAL PRESSURE. MINIMUM REQUIRED FIRE FLOW FOR COMMERCIAL AND INDUSTRIAL SITES SHALL BE DESIGNED PER JEFFERSON PARISH FIRE DEPARTMENT’S LATEST REQUIREMENTS.

† THE 1000 GPM REQUIREMENT HAS BEEN ADOPTED FROM NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). THE FOLLOWING IS LANGUAGE FROM “NFPA” CONCERNING FIRE FLOWS IN ONE AND TWO FAMILY DWELLINGS UP TO 3600 SQUARE FEET ALONG WITH A COPY OF THE TABLE FOR THOSE ABOVE 3600 SQUARE FEET AND OTHER STRUCTURES.

H.5 Fire Flow Requirements for Buildings:

H.5.1 One- and Two-Family Dwellings. The minimum fire flow and flow duration requirements for one- and two-family dwellings having a fire area that does not exceed 3600 ft² (334.5 m²) shall be 1000 gpm (3785 L/min) for 1 hour. Fire flow and flow duration for dwellings having a fire area in excess of 3600 ft² (334.5 m²) shall not be less than that specified in Table H.5.1. NFPA 1 Fire Prevention Code.

H.5.2 Buildings Other Than One- and Two-Family Dwellings. The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table H.5.1. (The attached Table screen shot)

H.5.2.1 A reduction in required fire flow of up to 75 percent, as approved, shall be permitted when the building is protected throughout by an approved automatic sprinkler system. The resulting fire flow shall not be less than 1000 gpm (3785 L/min.).

H.5.2.2 A reduction in required fire flow of up to 75 percent, as approved, shall be permitted when the building is protected throughout by an approved automatic sprinkler system, which utilizes quick response sprinklers throughout. The resulting fire flow shall not be less than 600 gpm (2270 L/min.).

Table H.5.1 Minimum Required Fire Flow and Flow Duration for Buildings

Fire Area A ² (x0.0929 for m ²)					Fire Flow gpm ² (x 3.785 for L/min)	Flow Duration (hours)
U(443), U(332), U(222) ¹	U(111), U(211) ¹	IV(2HH), V(111) ¹	U(000), U(200), U(000) ¹	V(000) ¹		
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	3
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-73,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	4
128,701-145,900	73,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	
145,901-164,200	82,101-93,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	93,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,300	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,301-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
295,901-Greater	166,501-Greater	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
295,901-Greater	166,501-Greater	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
295,901-Greater	166,501-Greater	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
295,901-Greater	166,501-Greater	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
295,901-Greater	166,501-Greater	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
295,901-Greater	166,501-Greater	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
295,901-Greater	166,501-Greater	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
295,901-Greater	166,501-Greater	191,401-Greater	128,301-Greater	85,101-Greater	8,000	

¹ Types of construction are based on NFPA 220.

D. LOOPED LINES

FIRE HYDRANTS SHALL BE SUPPLIED BY NOT LESS THAN AN 8 INCH DIAMETER LINE IN LOOPED SYSTEMS.

E. **DEAD-END LINES**

DEAD-END LINES, WHICH SUPPLY FIRE HYDRANTS, SHALL NOT EXCEED 600 FEET IN LENGTH FOR LINE SIZES LESS THAN 10 INCH IN DIAMETER. EXCEPTION TO THIS REQUIREMENT, WITH JEFFERSON PARISH FIRE DEPARTMENT'S APPROVAL, IS WHEN DESIGN CALCULATIONS WOULD DEMONSTRATE AVAILABILITY OF MINIMUM REQUIRED FIRE FLOW OF "1000 GPM" @ "20 PSI" RESIDUAL PRESSURE FOR THE DEAD-END FIRE HYDRANT.

ANY FACILITY THAT REQUIRES FIRE PROTECTION SHALL NOT BE FARTHER THAN 200 FEET FROM A FIRE HYDRANT. THIS REQUIREMENT MAY BE WAIVED (MODIFIED) BY THE JEFFERSON PARISH FIRE DEPARTMENT.

F. **HYDRANT VALVES**

A 6 INCH RESILIENT SEAT GATE VALVE (NRS) SHALL BE INSTALLED ON ALL NEW HYDRANT LEADS REGARDLESS OF WATER LINE SIZE.

G. **HYDRANT TEES**

ALL HYDRANT TEES SHALL BE SWIVEL TYPE.

H. **HYDRANT SPACING**

FIRE HYDRANT SPACING SHALL NOT BE GREATER THAN 400 FEET IN RESIDENTIAL AREAS, OR 350 FEET IN COMMERCIAL AREAS. ANY FACILITY THAT REQUIRES FIRE PROTECTION SHALL NOT BE FARTHER THAN 200 FEET FROM A FIRE HYDRANT.

19. **VALVES:**

A. **GATE VALVES**

ALL GATE VALVES, 4 INCH – 12 INCH, SHALL HAVE CAST IRON OR DUCTILE IRON BODIES, BRONZE MOUNTED RESILIENT SEAT TYPE WITH A 200 P.S.I. WORKING PRESSURE. GATE VALVES SHALL CONFORM TO AWWA C509 OR C515 AND HAVE A NON-RISING STEM, 2 INCH OPERATING NUT AND OPEN IN A COUNTER-CLOCKWISE DIRECTION (LEFT HAND OPENING). GATE VALVES SHALL HAVE A FACTORY APPLIED EPOXY COATING AND HAVE STAINLESS STEEL OR HEAT TREATED TEFLON COATED COR-TEN BOLTS AND NUTS. NO

CADIUM PLATED NUTS AND BOLTS ARE PERMITTED. GATE VALVES SHALL BE MANUFACTURED BY HENRY PRATT COMPANY, MUELLER COMPANY, M & H, CLOW, U.S. PIPE OR DZURICH. VALVES MUST BE OF DOMESTIC UNITED STATES OF AMERICA MANUFACTURE.

B. BUTTERFLY VALVES

ALL VALVES 14 INCHES AND LARGER SHALL BE BUTTERFLY VALVES CONFORMING TO AWWA C504, CLASS 150B. VALVES SHALL BE SHORT BODY DESIGN WITH MECHANICAL OR FLANGED ENDS AND OPERATE BY TURNING A TWO (2) INCH OPERATING NUT IN A COUNTER-CLOCKWISE DIRECTION (LEFT HAND OPENING). BUTTERFLY VALVES SHALL HAVE A FACTORY APPLIED EPOXY COATING AND HAVE STAINLESS STEEL OR HEAT TREATED TEFLON COATED COR-TEN BOLTS AND NUTS. NO CADIUM PLATED NUTS AND BOLTS ARE PERMITTED. BUTTERFLY VALVES SHALL BE MANUFACTURED BY HENRY PRATT COMPANY, MUELLER COMPANY, M & H, CLOW OR DZURICH. VALVES MUST BE OF DOMESTIC UNITED STATES OF AMERICA MANUFACTURE.

C. CHECK VALVES

CHECK VALVES SHALL BE PLAIN TYPE WITH BRONZE MOUNTING SUITABLE FOR DIRECT BURIAL, AND BE OF DOMESTIC UNITED STATES OF AMERICA MANUFACTURE.

CHECK VALVES 3 INCH TO 12 INCH IN SIZE SHALL BE A PLAIN SWING CHECK TYPE WITH A CAST IRON OR DUCTILE IRON BODY, STAINLESS STEEL HINGE PIN, BRONZE DISC AND SEAT RING. THE VALVE SHALL BE SUITABLE FOR DIRECT BURIAL AND SHALL HAVE FLANGED OR MECHANICAL JOINT ENDS. VALVES SHALL BE OF DOMESTIC UNITED STATES OF AMERICA MANUFACTURE.

D. VALVE LOCATION AND SPACING

VALVES SHALL BE INSTALLED AS PER PROJECT / SUBDIVISION PLANS AND SHALL MEET THE FOLLOWING MINIMUM JEFFERSON PARISH VALVE REQUIREMENTS: 1) VALVES SHALL BE INSTALLED AT EACH INTERSECTION, IN ACCORDANCE WITH JEFFERSON PARISH STANDARD DRAWINGS. 2) VALVES SHALL BE PLACED SO THAT NO SINGLE CASE OF PIPE BREAKAGE SHALL REQUIRE SHUTTING OFF FROM SERVICE AN ARTERY, OR MORE THAN 500 FEET OF PIPE IN HIGH VOLUME DISTRICTS (RESIDENTIAL OR COMMERCIAL), OR MORE THAN 800 FEET OF PIPE IN ANY AREA (TRANSMISSION LINES). ANY DISCREPANCIES BETWEEN THESE PLANS AND JEFFERSON PARISH MINIMUM

REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.

E. **LOCATION IDENTIFICATION**

THE SYMBOL “ ^ ” (LETTER “V”, UPSIDE DOWN) SHALL BE PLACED IN THE FACE OF THE CURB POINTING TO ALL WATER VALVES (EXCLUDING FIRE HYDRANT VALVES).

20. **METERS:**

A. **RESIDENTIAL METERS**

RESIDENTIAL METERS (2" OR SMALLER) SHALL BE PROVIDED BY AND INSTALLED BY THE JEFFERSON PARISH DEPARTMENT OF WATER. APPLICANTS SHALL CONTACT THE JEFFERSON PARISH DEPARTMENT OF WATER, EASTBANK (736-6072/73) OR WESTBANK (349-5075), OFFICES TO REQUEST FOR RESIDENTIAL METERS. ALL APPLICABLE FEES ARE PAYABLE TO THE DEPARTMENT OF WATER.

B. **IRRIGATION/GARDEN METERS**

IRRIGATION/GARDEN WATER METERS (2" OR SMALLER) SHALL BE PROVIDED BY AND INSTALLED BY THE JEFFERSON PARISH DEPARTMENT OF WATER. APPLICANTS SHALL CONTACT THE JEFFERSON PARISH DEPARTMENT OF WATER, EASTBANK (736-6072/73) OR WESTBANK (349-5075), OFFICES TO REQUEST FOR IRRIGATION/GARDEN WATER METERS. ALL APPLICABLE FEES ARE PAYABLE TO THE DEPARTMENT OF WATER.

C. **COMMERCIAL METERS 2 INCH OR SMALLER**

ALL WATER METERS 2 INCH OR SMALLER SHALL BE PROVIDED BY AND INSTALLED BY THE JEFFERSON PARISH DEPARTMENT OF WATER. APPLICATIONS FOR ALL COMMERCIAL WATER METERS SHALL BE MADE TO THE DEPARTMENT OF ENGINEERING (504) 736-6814 PRIOR TO SCHEDULING ANY CONSTRUCTION. THE APPLICANT SHALL COMPLETE A WATER METER VERIFICATION FORM AS REQUIRED BY THE DEPARTMENT OF ENGINEERING.

D. **COMMERCIAL WATER METERS 3 INCH AND LARGER**

ALL WATER METERS 3 INCH AND LARGER, SHALL BE FURNISHED AND INSTALLED BY THE APPLICANT. METERS 3 INCH AND LARGER SHALL BE OF THE TYPE AND MANUFACTURER SPECIFIED BY THE DEPARTMENT OF ENGINEERING. CONTACT THE DEPARTMENT OF ENGINEERING FOR REQUIRED METER SPECIFICATIONS PRIOR TO ORDERING ANY METER EQUIPMENT OR MATERIALS. ALL METERS 3 INCH AND LARGER SHALL BE FURNISHED WITH A STRAINER. BY-PASS METERS, IF REQUESTED BY THE OWNER AND/OR IF DEEMED NECESSARY BY THE JEFFERSON PARISH DEPARTMENT OF WATER, SHALL BE 2 INCH MINIMUM. THE APPLICANT MUST PRESENT A RECEIPT FOR ALL REQUIRED FEES AND DEPOSITS (CONSUMER RECEIPT) ON THE INSTALLATION TO THE DEPARTMENT OF ENGINEERING, INSPECTION DIVISION, (736-6793) PRIOR TO ANY CONSTRUCTION.

E. **METER ELEVATION**

THE CONTRACTOR SHALL EXPOSE THE LINE TO DETERMINE DEPTH OF THE METER BOX. METER ELEVATION IS TO BE DETERMINED BY THE DEPARTMENT OF ENGINEERING. THE MAXIMUM DISTANCE BETWEEN GROUND SURFACE AND THE CENTERLINE OF THE WATER METER SHALL BE 24 INCHES UNLESS OTHERWISE AUTHORIZED BY THE DEPARTMENT OF ENGINEERING.

F. **METER VAULTS INSTALLATION**

MATERIALS TO BE USED IN CONSTRUCTION OF METER VAULTS INSTALLED IN TRAFFIC AREAS MAY BE COMMON BRICK, CONCRETE BLOCK, POURED IN PLACE REINFORCED CONCRETE OR A PRECAST CONCRETE BOX AS MANUFACTURED BY BROOKS PRODUCTS ~~OR APPROVED EQUAL.~~

G. **METER VAULTS ACCESS HATCH AND VALVE COVERS**

METER VAULT ACCESS HATCH SHALL BE A HEAVY DUTY CAST IRON MANHOLE RING AND COVER WITH MACHINED RING SEATS. THE WORD "WATER" SHALL BE EMBOSSED ON THE COVER. THE MANHOLE RING AND COVER SHALL BE CENTERED OVER THE METER AND SHALL BE A VULCAN V-1406 W/COVER. WATER VALVE COVERS FOR THE METER VAULT SHALL BE HEAVY DUTY CAST IRON VULCAN V-8460. THE VALVE COVERS SHALL BE CENTERED OVER THE VALVES AND THE WORD "WATER" SHALL BE EMBOSSED ON THE COVER.

H. **MAINTENANCE RESPONSIBILITY**

JEFFERSON PARISH WILL ASSUME MAINTENANCE RESPONSIBILITY FOR LARGE WATER METERS (3 INCHES AND ABOVE) 365 CALENDAR DAYS FROM THE DATE THE OWNER ACCEPTS THE PROJECT, OR ALL WATER FACILITY WORK IS COMPLETED IN ACCORDANCE WITH JEFFERSON PARISH STANDARD SPECIFICATIONS, WHICHEVER OCCURS LAST. UNTIL JEFFERSON PARISH ISSUES A "LETTER OF WATER FACILITY ACCEPTANCE", THE OWNER IS RESPONSIBLE FOR ALL REPAIR AND REPLACEMENT COSTS FOR WATER FACILITIES.

21. FIRE SERVICE:

A. FIRE SERVICES 2 INCH OR SMALLER

ALL FIRE SERVICES 2 INCH OR SMALLER SHALL BE PROVIDED BY AND INSTALLED BY THE JEFFERSON PARISH DEPARTMENT OF WATER. APPLICATIONS FOR ALL FIRE SERVICE INSTALLATIONS SHALL BE MADE TO THE DEPARTMENT OF ENGINEERING (504) 736-6814 PRIOR TO SCHEDULING ANY CONSTRUCTION. THE APPLICANT SHALL COMPLETE A FIRE SERVICE WATER VERIFICATION FORM AS REQUIRED BY THE DEPARTMENT OF ENGINEERING. ALL APPLICABLE FEES ARE PAYABLE TO THE DEPARTMENT OF WATER.

B. FIRE SERVICES "3" INCH AND LARGER

ALL FIRE SERVICE TAPS, 3 INCH AND LARGER, SHALL BE FURNISHED AND INSTALLED BY THE APPLICANT. THE APPLICANT MUST PRESENT A RECEIPT FOR ALL REQUIRED FEES AND DEPOSITS (CONSUMER RECEIPT) ON THE INSTALLATION TO THE DEPARTMENT OF ENGINEERING INSPECTION DIVISION (736-6793) PRIOR TO ANY CONSTRUCTION.

C. FIRE SERVICE LINES FOR BUILDING SPRINKLER SYSTEMS

FIRE SERVICE LINES FOR BUILDING SPRINKLER SYSTEMS SHALL HAVE CHECK VALVES ADJACENT TO AND DOWNSTREAM OF THE TAPPING VALVE.

D. MAINTENANCE RESPONSIBILITY

JEFFERSON PARISH MAINTENANCE RESPONSIBILITY FOR FIRE SERVICE LINES WILL NOT INCLUDE ANY SEGMENT OF THESE LINES ON THE PRIVATE PROPERTY SIDE OF THE REQUIRED CHECK VALVE, INCLUDING THE CHECK VALVE. FIRE SERVICE LINE CHECK VALVES WILL BE PRIVATELY OWNED AND MAINTAINED.

E. **INSPECTION BY JEFFERSON PARISH ENGINEERING DEPARTMENT**

ALL FIRE LINES SHALL BE INSPECTED BY THE JEFFERSON PARISH ENGINEERING DEPARTMENT. INSPECTION SHALL INCLUDE THE ENTIRE FIRE SERVICE LINES (INCLUDING THE CHECK VALVE AND THE FIRE LINE INSIDE PRIVATE PROPERTY, ALL THE WAY TO THE BUILDING). THE JEFFERSON PARISH DEPARTMENT OF "INSPECTION & CODE ENFORCEMENT" SHALL BE RESPONSIBLE FOR INSPECTION OF THE FIRE PROTECTION SYSTEM INSIDE BUILDINGS.

22. **LINES CONSTRUCTED ON PRIVATE PROPERTY**

ALL WATER LINES (INCLUDING "LOOPE" WATER LINES), FIRE LINES (FIRE SERVICE LINES), FIRE HYDRANTS, INSTALLED ON PRIVATE PROPERTY SHALL BE INSTALLED IN ACCORDANCE WITH JEFFERSON PARISH STANDARDS AND SPECIFICATIONS. ALL WATER LINES, AND/OR FIRE SERVICE LINES CONSTRUCTED ON PRIVATE PROPERTY, SHALL REMAIN PRIVATE. IN SPECIAL CIRCUMSTANCES WHEN JEFFERSON PARISH MAY HAVE TO TAKE OVER THE MAINTENANCE OF ANY FIRE SERVICE LINE, A 20 FOOT WIDE MINIMUM SERVITUDE, CENTERED ON THE LINE, MUST BE DEDICATED TO JEFFERSON PARISH.

23. **CLEARANCE:**

A. **BETWEEN WATER LINES AND SANITARY SEWER LINES**

WHEN SANITARY SEWER LINES ARE PARALLEL TO WATER LINES, THE CLEARANCE SHALL BE A MINIMUM OF 6 FEET (MEASURED HORIZONTALLY): WHEN SEWER AND WATER LINES CROSS, VERTICAL CLEARANCE SHALL BE 18 INCHES, WITH THE WATER LINE CROSSING ON TOP. IF THESE CONDITIONS CANNOT BE MET, DUE TO FIELD CONDITIONS, THE "10 STATE STANDARDS" ((PHONE (518) 439-7286, WEB SITE: WWW.HES.ORG)) GUIDELINES CAN BE FOLLOWED, WITH APPROVAL OF THE JEFFERSON PARISH ENGINEERING DEPARTMENT.

B. **BETWEEN WATER LINES AND ANY PRIVATE UTILITY LINES**

MINIMUM CLEARANCE BETWEEN A WATER LINE AND ANY PRIVATE UTILITY LINE SHALL BE 6 FEET (MEASURED HORIZONTALLY). PRIVATE UTILITIES SHALL BE INSTALLED IN PRIVATE SERVITUDES.

C. BETWEEN WATER LINES AND BUILDINGS

WATER LINES SHALL NOT BE INSTALLED CLOSER THAN 10 FEET (MEASURED HORIZONTALLY) FROM ANY BUILDING FOUNDATION, WALL OR BUILDING OVERHANG. THIS 10 FOOT CLEARANCE MAY BE REDUCED TO 6 FEET IN AREAS WITH COMMERCIAL ZONING WITH LIMITED RIGHT-OF-WAY AND WITH APPROVAL OF THE JEFFERSON PARISH ENGINEERING DEPARTMENT.

24. AS-BUILT PLANS AND FINAL INSPECTION

PRIOR TO TESTING AND CHLORINATION OF THE WATER DISTRIBUTION SYSTEM AND PUTTING THE WATER LINE INTO SERVICE, AS-BUILT PLANS SHOULD BE COMPLETED AND THREE (3) BLUELINE COPIES SHOULD BE SUBMITTED TO THE DEPARTMENT OF ENGINEERING. AS-BUILT PLANS SHOULD BE USED AS A BASIS FOR THE FINAL INSPECTION. AS-BUILT PLANS SHOULD BE COMPLETED IN SUCH A WAY THAT IDENTIFY THE TYPE AND LOCATION OF VALVES, HYDRANTS, FITTINGS AND OTHER APPURTENANCES AS WELL AS THE PIPE TYPE, SIZE, LENGTH, ETC.

THE "VALVE OPERATING LOGS" (DEPARTMENT OF WATER FORM "W-101") SHALL BE SUBMITTED ALONG WITH THE AS-BUILT PLANS.

25. PRESSURE TESTING AND DISINFECTION OF WATER LINES

ALL NEW AND/OR MODIFIED SEGMENTS OF THE WATER DISTRIBUTION SYSTEM SHALL BE TESTED TO 100 P.S.I. THIS PRESSURE SHALL BE MAINTAINED FOR A PERIOD OF TWO (2) HOURS WITH NO DISCERNIBLE PRESSURE LOSS. LEAKS SHALL BE REPAIRED BY REMOVING AND REPLACING FAULTY SECTIONS. THE PRESSURE TEST SHALL BE PERFORMED BY THE CONTRACTOR UNDER THE DIRECT SUPERVISION OF THE JEFFERSON PARISH ENGINEERING DEPARTMENT. BEFORE BEING PLACED IN SERVICE, ALL NEW, MODIFIED AND/OR CONTAMINATED SEGMENTS OF THE WATER DISTRIBUTION SYSTEM SHALL BE FLUSHED AND DISINFECTED (CHLORINATED) EITHER BY JEFFERSON PARISH ENGINEERING DEPARTMENT PERSONNEL OR UNDER THEIR DIRECT SUPERVISION. FLUSHING SHOULD BE DONE AT FLOW RATES SUFFICIENT TO PROVIDE A VELOCITY IN THE LINES OF AT LEAST 2.5 FEET PER SECOND. DISINFECTION SHOULD COMPLY WITH AWWA STANDARD C651, "DISINFECTING WATER MAINS". ONLY AFTER SATISFACTORY PRESSURE TESTING AND DISINFECTION (CHLORINATION) IS COMPLETED CAN THE SEGMENT BE TIED INTO THE EXISTING WATER DISTRIBUTION SYSTEM. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE ALLOWED TO MAKE A TIE-IN TO THE EXISTING WATER DISTRIBUTION SYSTEM WITHOUT DIRECT SUPERVISION OF THE JEFFERSON PARISH ENGINEERING DEPARTMENT. ALL COSTS ASSOCIATED WITH THE TESTING AND CHLORINATION PROCEDURE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

26. PIPE INSTALLATION

THE INSTALLATION OF WATER MAINS AND OTHER RELATED APPURTENANCES SHALL BE STRICTLY IN ACCORDANCE WITH THESE JEFFERSON PARISH STANDARD NOTES, AND LATEST APPLICABLE AWWA STANDARDS SUCH AS AWWA C600 (INSTALLATION OF DUCTILE-IRON WATER MAINS AND APPURTENANCES), AWWA C605 (UNDERGROUND INSTALLATION OF POLYVINYL CHLORIDE (PVC) PRESSURE PIPE AND FITTINGS FOR WATER), ETC. AND THE MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS. ALL PIPES MUST BE SWABBED WITH CHLORINE PRIOR TO INSTALLATION.

IN ADDITION TO ANY PREVIOUSLY MENTIONED REQUIREMENTS FOR POLYETHYLENE ENCASEMENT, POLYETHYLENE ENCASEMENT IN ACCORDANCE WITH ANSI/AWWA C105/A21.5 (MINIMUM 8 MIL THICK) MAY BE REQUIRED FOR ALL "DUCTILE IRON FITTINGS" AND "APPURTENANCES" REGARDLESS OF ANY SPECIFIC COATING.

27. PIPE BEDDING

THE OBJECTIVE OF BEDDING IS TO PROVIDE A CONTINUOUS SUPPORT FOR THE PIPE AT REQUIRED LINE AND GRADE. THE BEDDING MAY OR MAY NOT BE COMPACTED, BUT IN ANY EVENT, THE PROJECTING BELLS OF THE PIPE SHOULD BE PROPERLY RELIEVED IN THE TRENCH BOTTOM SO THAT THE ENTIRE PIPE IS EVENLY SUPPORTED BY THE BEDDING. WHERE THE TRENCH BOTTOM IS UNSTABLE (ORGANIC MATERIAL, OR "QUICK" SAND OR SIMILAR MATERIAL), THE TRENCH BOTTOM SHOULD BE OVER-EXCAVATED AND BROUGHT BACK TO GRADE UTILIZING DUNNAGE BOARDS, GEOGRID, GEOTEXTILE FABRIC OR APPROVED BEDDING MATERIAL AND/OR ANY COMBINATION OF SAME.

TABLE OF CONTENTS

1. NOTIFICATION:	1
2. MATERIAL	1
3. NON CONFORMANCE	2
4. VERIFICATION OF EXISTING UTILITIES PRIOR TO ORDERING MATERIALS.....	2
5. DOMESTICITY.....	2
A. PURPOSE OF THIS SECTION	3
B. VALVES AND HYDRANTS	3
C. APPURTENANCES	3
D. FITTINGS.....	3
E. ISO REGISTERED MANUFACTURER.....	4
6. WATER LINES:	4
A. MINIMUM SIZE	4

B.	DEPTH OF COVER	5
C.	BACKFILL	5
D.	PVC PIPE.....	5
E.	DUCTILE IRON PIPE.....	5
F.	STREET CROSSINGS	6
G.	CANAL CROSSINGS	7
H.	HDPE PIPE (AND FITTINGS) -.....	7
I.	POLYETHYLENE (PE) PLASTIC TUBING.....	8
7.	FITTINGS	8
8.	MINIMUM PIPE LENGTH	9
9.	PIPE AND FITTING JOINT STYLE:.....	9
A.	DUCTILE IRON	9
B.	PVC	9
C.	POLYETHYLENE	9
10.	RESTRAINED JOINTS	9
11.	PAINT (EXPOSED WATER LINES).....	10
12.	TAPPING SLEEVES	10
13.	TAPPING VALVES	10
14.	SERVICE SADDLES	10
15.	PIPE RESTRAINERS (PIPE RESTRAINTS)	11
A.	APPLICABLE STANDARDS	11
B.	COATING.....	11
a.	Fusion-bond epoxy powder coating	11
b.	Electrocoating	12
c.	Fusion-bond epoxy powder coating sample specifications.....	12
d.	Electrocoating sample specifications	15
C.	MATERIAL	16
D.	MANUFACTURER.....	16
16.	COUPLINGS	16
17.	BOLTS AND NUTS	16
18.	FIRE HYDRANTS:	16
A.	EASTBANK FIRE HYDRANTS	16
B.	WESTBANK FIRE HYDRANTS	17
C.	MINIMUM REQUIRED FIRE FLOW FOR PROPOSED SUBDIVISIONS	17
D.	LOOPED LINES.....	18
E.	DEAD-END LINES	19
F.	HYDRANT VALVES	19
G.	HYDRANT TEES.....	19
H.	HYDRANT SPACING	19
19.	VALVES:.....	19
A.	GATE VALVES	19
B.	BUTTERFLY VALVES.....	20
C.	CHECK VALVES	20
D.	VALVE LOCATION AND SPACING	20
E.	LOCATION IDENTIFICATION	21
20.	METERS:.....	21

A.	RESIDENTIAL METERS	21
B.	IRRIGATION/GARDEN METERS	21
C.	COMMERCIAL METERS 2 INCH OR SMALLER	21
D.	COMMERCIAL WATER METERS 3 INCH AND LARGER	21
E.	METER ELEVATION	22
F.	METER VAULTS INSTALLATION	22
G.	METER VAULTS ACCESS HATCH AND VALVE COVERS	22
H.	MAINTENANCE RESPONSIBILITY	22
21.	FIRE SERVICE:	23
A.	FIRE SERVICES 2 INCH OR SMALLER	23
B.	FIRE SERVICES "3" INCH AND LARGER	23
C.	FIRE SERVICE LINES FOR BUILDING SPRINKLER SYSTEMS	23
D.	MAINTENANCE RESPONSIBILITY	23
E.	INSPECTION BY JEFFERSON PARISH ENGINEERING DEPARTMENT	24
22.	LINES CONSTRUCTED ON PRIVATE PROPERTY	24
23.	CLEARANCE:	24
A.	BETWEEN WATER LINES AND SANITARY SEWER LINES	24
B.	BETWEEN WATER LINES AND ANY PRIVATE UTILITY LINES	24
C.	BETWEEN WATER LINES AND BUILDINGS	25
24.	AS-BUILT PLANS AND FINAL INSPECTION	25
25.	PRESSURE TESTING AND DISINFECTION OF WATER LINES	25
26.	PIPE INSTALLATION	26
27.	PIPE BEDDING	26

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
PROPOSED PROJECT

STATE PROJECT NO. 064-01-0040
FEDERAL AID PROJECT NO. 5201(001)

CAMINADA BAY BRIDGE
JEFFERSON PARISH

The following technical specifications have been prepared by or under the direct supervision of the licensed Civil Engineer whose seal/stamp appears below.

**Instrumentation Installation Specifications for
LTRC Project No. 07-4ST
S. P. No. 736-99-1439
Integral Bridge Abutment for Louisiana's Soft Soil**

Name: Dr. Chunsheng Cai

Date: December 22, 2008

Discipline: Civil Engineering



A handwritten signature in black ink, appearing to read "Chunsheng Cai", written over the seal.

Dec. 22, 2008

TECHNICAL SPECIFICATIONS

**Instrumentation Installation Specifications for
LTRC Project No. 07-4ST
S. P. No. 736-99-1439
Integral Bridge Abutment for Louisiana's Soft Soil**

DESCRIPTION: This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the installation of the instrumentation for the Integral Bridge Abutment.

General Note:

1. The contractor will seek the company BDI, which is the supplier for instrumentation as a single source, subcontractor. Their contact information is:

Bridge Diagnostic, Inc.
1965 57th Court, Suite 106
Boulder, CO 80301-2826
Office: (303) 494-3230
Fax: (303) 494-5027

2. The cost of instrumentation installation will be paid by the bridge contractor.
3. The instrumentation provider (BDI) will be selected as a sub-contractor to install all instrumentation on the super structure and sub structure of the bridge.
4. The instrumentation will be purchased through the state research project (LTRC 07-4ST) to LSU, in compliance with the DOTD requirements.
5. In addition, members of the research team will accompany BDI personnel during the instrumentation installation process.
6. Other than the installation of each gauge, the contractor will need to be aware to avoid damage to the instrumentation cables at all stages of construction.

CONSTRUCTION REQUIREMENTS:

Item S-1, Pile Instrumentation (at the precast plant)

This item consists of installing 32 strain sensors in two of the precast piles that are supporting the abutment at bent # 1, at the pile manufacturing facility.

These "sister bar" strain gages will be installed by BDI during the construction process and careful coordination is needed between the research team, the BDI, and construction contractor(s). The contractor shall inform BDI 30 days in advance regarding the construction schedule so BDI personnel will have sufficient time to prepare the gage installation.

During the subsequent concrete casting and installation processes, the contractor shall not damage the gages, wires that connected to the gages, data acquisition systems, and any other experimental equipment. The contractor will be financially responsible for both the cost and labor of the replacement of the gages, wires, and equipment if the damage is due to the contractor's negligence.

TECHNICAL SPECIFICATIONS

Item S-2, Vibrating Wire Strain Gages in Piles

This item consists of installing vibrating wire strain gages in selected piles. These gage locations were selected primarily to monitor any bending forces induced in the concrete piles. Since these are precast piles, the gages will need to be installed by BDI personnel at the precast location prior to the concrete being poured. As shown in the instrumentation plan (figures 1 and 2), a gage will be attached to the rebar cage in each corner of the pile and the cables should be bar-tied along the reinforcement. This will allow bending forces to be measured in both directions. BDI personnel will install the sensors and will need to ensure that once the gages are installed that their cables are routed to their exit point out the side of the pile to ensure that damage to the cables does not occur during installation. At the exit point, conduit boxes provided by BDI personnel must be installed by the contractor to protect the cables during transportation and driving. Each gage will require at least one to two hours for installation and proper cable routing.

During the pouring process the contractor must ensure that proper care is taken to ensure that the sensors and cables are not damaged.

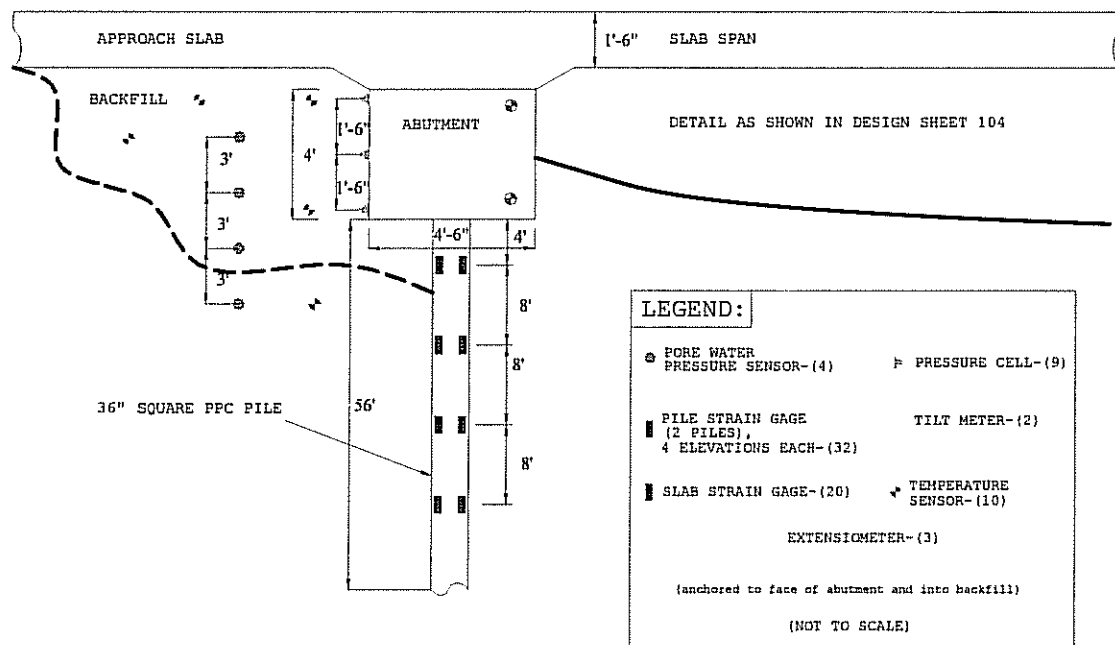


Figure 1: Instrumentation Plan for Caminada Bay Bridge –Substructure
(Bent 1, LADOTD Design Sheets 104 and 147)

TECHNICAL SPECIFICATIONS

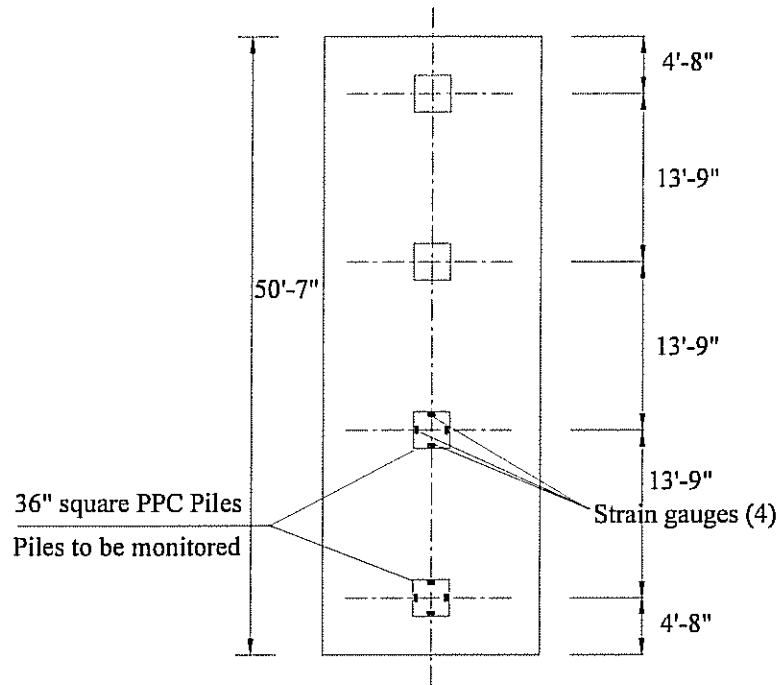


Figure 2: Plan view of piles (Bent 1, LADOTD Design Sheet 109)

Item S-3, Substructure (Abutment and Surrounding)

This item consists of installing (a) 9 pressure cells, (b) 3 Extensometers, and (c) 4 Pore Water Pressure sensors. These gauges will be installed by BDI personnel during the construction process and careful coordination is needed between the research team and construction contractor(s). The contractor shall inform the research team 30 days in advance regarding the construction schedule so the research team will have sufficient time to prepare the gage installation.

During the construction process, the contractor shall not damage the gages, wires that connected to the gages, data acquisition systems, and any other experimental facilities. The contractor will be financially responsible for the replacement of these gauges, wires, and equipment if the damage is due to the contractor's negligence.

Item S-4, Pressure Cells on Backwall of Abutment

This item consists of installing pressure cells on the backwall of the abutment. These cells are being installed by BDI personnel and the research team to monitor soil pressure variations behind the backwall as they are expected to change as longitudinal forces are applied by the superstructure expansion/contraction with temperature. After the backwall cap has been cast, each pressure cell will be mounted by BDI personnel at the shown locations using stainless mounting hardware. In addition, the contractor shall provide a mason for a small pad of mortar to be placed behind each cell during installation to ensure that it is making uniform contact with the concrete surface. The cable will then need to be anchored along its length to its exit from behind the abutment and routed to the data logger location. Note that if any foam is installed on the backwall, it will need to be cut out large enough to accommodate the pressure cells. It is recommended that the cells be installed prior to any foam. The backfill material around the cells

TECHNICAL SPECIFICATIONS

shall be placed in a manner that would not damage any instrumentation. It is anticipated that each pressure cell can be installed in approximately 2-3 hours.

Item S-7, Pore Water Pressure Sensors

This item consists of installing pore water pressure sensors. These will be installed by the contractor and research team during the backfill process and the contractor must use care in routing and protecting the cables during installation. Similar to the soil pressure cells, large objects will need to be removed around the sensors. Assume at least one hour per gauge for installation by BDI personnel.

Item S-8, Superstructure

This item pertains to the instrumentation of the superstructure. As shown in the following Figure 3, the superstructure instrumentation includes 12 embedded strain gages, eight surface mount strain gages, and two tilt meters. These gauges will be installed by BDI personnel during the construction process and careful coordination is needed between BDI personnel and construction contractor(s). The contractor shall inform BDI personnel 30 days in advance regarding the construction schedule so BDI personnel will have sufficient time to prepare the gage installation.

During the construction process, the contractor shall not damage the gages, wires that connected to the gages, data acquisition systems, and any other experimental facilities. The contractor will be financially responsible for the replacement of these gauges, wires, and equipment if the damage is due to the contractor's negligence.

Item S-9, Installation of Embedded Sensors "Sister Bars"

BDI personnel and the research team will install the embedded gages (sister bar strain gages) on the bridge slab reinforcement after it has been laid out and before concrete is cast. The contractor shall provide a time window of three days and appropriate support for BDI personnel to access the construction site in order to actually install the embedded gages. The 12 embedded sensors will be installed by BDI personnel on the positive moment rebars (bottom rebars) at the mid-span of Approach Span, Spans 1, 3, and 6, each section with two rebars installed. The other four embedded sensors will be installed by BDI personnel on the negative rebars (top rebars) at Bents 1 and 6, each section with two rebars installed. Assume 1 to 2 hours per sensor for installation by BDI personnel.

During the concrete casting process, the contractor shall take proper precautions not damage the embedded gages. The construction contractor shall inform BDI personnel 7 days in advance before the concrete is cast so BDI personnel can monitor the concrete casting process to ensure no damage will be caused during construction process. The contractor will be financially responsible for the replacement of these gauges, wires, and equipment if the damage is due to the contractor's negligence.

TECHNICAL SPECIFICATIONS

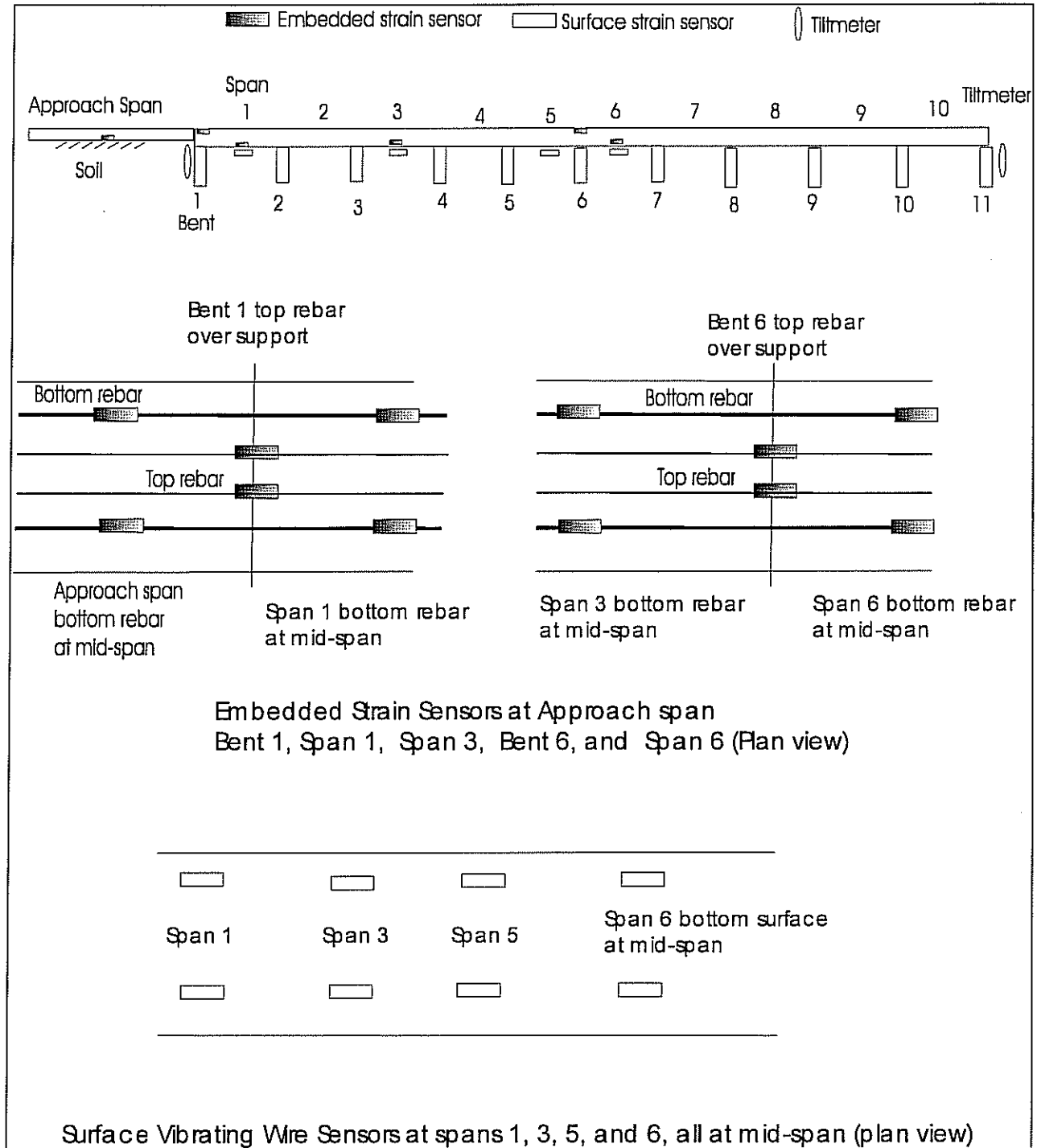


Figure 3: Instrumentation plan for the superstructure at Caminada Bay Bridge

Item S-10 Surface Mount Sensors and Installation of Data logger

Phase 4 consists of (a) Surface Mount Strain Gages and (b) 2 Tilt meters. These gauges will be installed by BDI personnel after the completion of the superstructure and careful coordination is needed between BDI personnel and construction contractor(s). The contractor shall inform BDI personnel 30 days in advance regarding the construction schedule so BDI personnel will have sufficient time to prepare the gage installation. During this installation BDI personnel and

TECHNICAL SPECIFICATIONS

research team will need access to both the top and bottom portions of the structure. The contractor will provide adequate access, 110AC power for tools, and other support for this installation procedure.

During the construction process, the contractor shall not damage the gages, wires that connected to the gages, data acquisition systems, and any other experimental facilities. The contractor will be financially responsible for the replacement of these gauges, wires, and equipment if the damage is due to the contractor's negligence.

Item S-11, Surface Strain Sensors

No special preparation is required for these as they are mounted with standard concrete anchors. Assume 2 hours for installation of each gage by BDI personnel. See the diagram under Phase 3 for Strain Sensor locations.

Item S-12, Tilt meters

No special preparation is required for these as they are mounted with standard concrete anchors. Assume 2 hours for installation of each gage by BDI personnel. See the diagram under Phase 3 for Tilt meter locations.

Item S-13, Data logger and Components

BDI personnel and the research team will install all components of the data logger. This will take approximately 2 days at which time the contract is required to provide an electrician to install conduit between various components of the system and to install an 110V power line to the data logger location and terminated inside the cabinet with a standard outlet box. In addition, a phone line will be installed and routed to the data logger cabinet by the contractor.

Installation of Instrumentation Cables: This effort will require the contractor to install conduit in some locations and other cable mounting hardware in other locations. The goal will be to protect the instrumentation cables from future damage from vandals, weather, wildlife, etc. This effort will require contractor to use standard cable pulling tools and label cable ends as they are installed and routed from each sensor to the data logger cabinet.

A stainless steel weatherproof cabinet will need to be installed by the contractor that will allow future access by the research team. Preferably, this will consist of a standard traffic cabinet installed on a small concrete slab to be constructed by the contractor.

Item S-14, General support required from contractor for the instrumentation effort

BDI personnel and the research team will do their best to accommodate the contractor's schedule for each phase of installation, however, it is imperative that the contractor maintain excellent communication with BDI personnel and the research team throughout the effort and provide the required advance warnings.

General support required by contractor for instrumentation installations will always include a contractor's representative to oversee the effort and to provide any necessary safety equipment such as harnesses and to ensure that proper safety procedures are being followed. BDI personnel and the research team will be responsible for providing their own hardhats, safety glasses, boots, and safety vests at all times.

TECHNICAL SPECIFICATIONS

Other items required during various phases of the sensor installations will be provided by contractor and these items include:

- Electrician, all necessary conduits, and components (corners, mounting hardware, etc.) for protection of all embedded and external sensors cables.
- Access to the instrumentation points such as manlifts, forklifts, or ladders.
- Power generator and extension cords for operating standard power tools such as hammer drills.
- Carpentry capabilities for fabricating temporary housings and other protective items from plywood, etc.
- Shovels, soil compaction/sifting equipment and operators.

TECHNICAL SPECIFICATIONS

Itemized Instrumentation List

Item	Description	Quantity
1	96- Channel Logger System Configured to read Vibrating Wire Sensors plus temperatures. Includes Data logger, Battery –pack Power Supply, 16-channel MUXs, VW and Temperature Signal Conditioning, PC Communication Interface and Cables, Wired up and housed in 16" x 18" fiberglass housing.	1
2	Remote PVC MUX Housing : BDI –MUXPCV One per multiplexer needed if all sensors are not wire back to the main data logger enclosure	1
3	Cellular Phone Modem: BDI CD- LINK Digital cellular Modem includes mounting kit. NOTE: Modem requires data plan. This must be purchased separately through the proper carrier.	1
4	Cell Antenna: BDI CD-Yag Antenna for use with Cellular Modem, includes 10' of cable	1
6	VW Embedded Temperature Thermistor	20
7	VW piezometer	6
8	VW Soil Pressure cells	9
9	VW Rebar Strainmeters ("Sisterbars"): BDI VW 4911 VW Strain gage mounted between two sections of rebar designed to be tied to the rebar cage before concrete is poured.	24
10	VW Strain Gauges: BDI VW 4000 Surface mount VW Strain Gauge 3" gage length w/10' BDI BC -250 cable, includes custom mounts, BDI aluminum cover.	32
11	VW Tilt meter : BDI VW 6350 VW Tilt meter w/10' BDI BDI- BC-250 Cable , includes bracket mount, BDI aluminum cover.	2
12	VW Extension cable : BDI-BC-250 Rugged Blue VW Sensor –to –MUX Interconnect cable: *Additional sensor cable ,first 10' included in sensor price*	4,000 ft
13	MUX Cable : BDI –MUX -550 Interconnect cable for remote MUX	200 ft

TECHNICAL SPECIFICATIONS

MEASUREMENT. This item consists of furnishing all equipment, materials, labor and incidental work necessary to complete the installation of the instrumentation. Measurement and payment for this item will be per Lump Sum.

PAYMENT. Payment for this item will be made at the contract unit price under:

Item No.	Pay Item	Pay Unit
NS-800-00300	Instrumentation Installation for Integral Bridge Abutment	Lump Sum

**STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND
DEVELOPMENT**



**CONSTRUCTION PROPOSAL
INFORMATION
FOR**

FEDERAL AID PROJECT

**STATE PROJECT NO. 064-01-0040
CAMINADA BAY BRIDGE
ROUTE LA 1
JEFFERSON PARISH**

**CONTRACT TIME FORM
COST-PLUS-TIME BIDDING PROCEDURE
(A + B) METHOD**

STATE PROJECT NO.	<u>064-01-0040</u>
FEDERAL AID PROJECT NO.	<u>5201(600)</u>
NAME OF PROJECT	<u>CAMINADA BAY BRIDGE</u>
ROUTE	<u>LA 1</u>
PARISH	<u>JEFFERSON</u>

CONTRACT TIME

The bidder shall determine the number of calendar days required for completion and final acceptance of the project and shall state this required time, in words, in the space provided below. The maximum allowable contract time for this project is **one thousand two hundred sixty (1260) calendar days**. The proposed completion time will be a factor used in considering bids for award of contract in accordance with the special provision, COST-PLUS-TIME BIDDING PROCEDURE (A+B METHOD). The stated number of calendar days required for completion will be the contract time for this project should the bidder be successful. Bids not including a contract time, or showing contract time in excess of the maximum allowable amount, will be considered irregular and will be rejected.

CONTRACT TIME (Calendar Days To Completion, In Words)
<div style="border-bottom: 1px solid black; height: 40px; width: 100%;"></div> <div style="text-align: right;">Calendar Days</div>

BID BOND

A Bid Bond is required when the bidder's total bid amount as calculated by the Department in accordance with Subsection 103.01 is greater than \$50,000. *(See Section 102 of the Project Specifications.)*

_____, as Principal (Bidder)
and _____, as
Surety, are bound unto the State of Louisiana, Department of Transportation and Development,
(hereinafter called the Department) in the sum of five percent (5%) of the bidder's total bid amount as
calculated by the Department for payment, of which the Principal and Surety bind themselves, their heirs,
executors, administrators, successors and assigns, as solidary obligors.

Signed and sealed this _____ day of _____, 20_____.

The condition of this obligation is such that, whereas the Principal has submitted a bid to the
Department on a contract for the construction of **STATE PROJECT NO. 064-01-0040; FEDERAL
AID PROJECT NO. 5201(600); CAMINADA BAY BRIDGE, located in JEFFERSON
PARISH; ROUTE LA 1**, if the bid is accepted and the Principal, within the specified time, enters into
the contract in writing and gives bond with Surety acceptable to the Department for payment and
performance of said contract, this obligation shall be void; otherwise to remain in effect.

Principal (Bidder or First Partner to Joint Venture)
By _____
Authorized Officer-Owner-Partner

Typed or Printed Name

If a Joint Venture, Second Partner
By _____
Authorized Officer-Owner-Partner

Typed or Printed Name

Surety
By _____ (Seal)
Agent or Attorney-in-Fact

Typed or Printed Name

To receive a copy of the contract and subsequent correspondence / communication from LA DOTD, with
respect to the bid bonds, the following information must be provided:

Bonding Agency or Company Name

Address

Agent or Representative

Phone Number / Fax Number



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 1

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0001	201-01-00100	Clearing and Grubbing		LUMP SUM
				Dollars
				Cents
0002	202-01-00100	Removal of Structures and Obstructions		LUMP SUM
				Dollars
				Cents
0003	202-02-04000	Removal of Bridge STA. 100+09.30, 28' X 3720' CONCRETE BRIDGE	1.000	EACH
				Dollars
				Cents
0004	202-02-38500	Removal of Surfacing and Stabilized Base	5,069.000	SQYD
				Dollars
				Cents
0005	203-01-00100	General Excavation	2,250.000	CUYD
				Dollars
				Cents
0006	203-03-00100	Embankment	2,775.000	CUYD
				Dollars
				Cents
0007	204-02-00100	Temporary Hay or Straw Bales	3.000	EACH
				Dollars
				Cents
0008	204-05-00100	Temporary Sediment Check Dams (Hay)	9.000	EACH
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 2

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0009	204-05-00200	Temporary Sediment Check Dams (Stone)	2.000	EACH
				Dollars
				Cents
0010	204-06-00100	Temporary Silt Fencing	3,524.000	LNFT
				Dollars
				Cents
0011	302-02-05120	Class II Base Course (10" Thick) (Stone or Recycled Portland Cement Concrete)	7,106.800	SQYD
				Dollars
				Cents
0012	304-01-00100	Lime	90.730	TON
				Dollars
				Cents
0013	304-04-00400	Lime Treatment (Type D) (12" Thick)	6,401.000	SQYD
				Dollars
				Cents
0014	401-01-00100	Aggregate Surface Course (Net Section)	144.000	CUYD
				Dollars
				Cents
0015	402-01-00100	Traffic Maintenance Aggregate (Vehicular Measurement)	1,500.000	CUYD
				Dollars
				Cents
0016	502-01-00100	Superpave Asphaltic Concrete	2,755.900	TON
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 3

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0017	502-01-00200	Superpave Asphaltic Concrete, Drives, Turnouts and Miscellaneous	588.700	TON
				Dollars
				Cents
0018	509-01-00100	Cold Planing Asphaltic Pavement	2,373.000	SQYD
				Dollars
				Cents
0019	509-02-00100	Contractor Retained Reclaimed Asphaltic Pavement	-33.000	CUYD
				Dollars
				Cents
0020	701-05-01040	Side Drain Pipe (18" RCP/PP/CMP)	174.000	LNFT
				Dollars
				Cents
0021	701-05-01060	Side Drain Pipe (24" RCP/PP/CMP)	276.000	LNFT
				Dollars
				Cents
0022	702-03-00100	Catch Basins (CB-01)	3.000	EACH
				Dollars
				Cents
0023	704-03-00100	Blocked Out Guard Rail	50.000	LNFT
				Dollars
				Cents
0024	704-08-00200	Guard Rail Transitions (Double Thrie Beam)	100.000	LNFT
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 4

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0025	704-11-00100	Guard Rail End Treatment (Flared)	4.000	EACH
				Dollars
				Cents
0026	706-01-00100	Concrete Walk (4" Thick)	394.600	SQYD
				Dollars
				Cents
0027	706-04-00100	Handicapped Curb Ramps	6.000	EACH
				Dollars
				Cents
0028	708-01-00100	Right-of-Way Monument	10.000	EACH
				Dollars
				Cents
0029	711-03-00500	Riprap (130 lb)	2,913.000	TON
				Dollars
				Cents
0030	711-04-00100	Geotextile Fabric	2,088.000	SQYD
				Dollars
				Cents
0031	713-01-00100	Temporary Signs and Barricades		LUMP SUM
				Dollars
				Cents
0032	713-04-01000	Temporary Pavement Markings (Solid Line) (4" Width)	1.197	MILE
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 5

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0033	716-01-00100	Mulch (Vegetative)	2.810	TON
				Dollars
				Cents
0034	717-01-00100	Seeding	84.000	LB
				Dollars
				Cents
0035	718-01-00100	Fertilizer	2,810.000	LB
				Dollars
				Cents
0036	722-02-00100	Project Site Laboratory (Equipped)	1.000	EACH
				Dollars
				Cents
0037	725-01-00100	Temporary Detour Roads	172.300	SQYD
				Dollars
				Cents
0038	726-01-00100	Bedding Material	42.300	CUYD
				Dollars
				Cents
0039	727-01-00100	Mobilization		LUMP SUM
				Dollars
				Cents
0040	729-16-00300	Object Marker Assembly (Type 3)	4.000	EACH
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 6

Contract ID: 064-01-0040**Project(s):** 064-01-0040**SECTION:** 1**GENERAL ITEMS**

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0041	730-09-00100	Electrical System		LUMP SUM
				Dollars
				Cents
0042	731-01-00100	NonreflectORIZED Raised Pavement Markers	880.000	EACH
				Dollars
				Cents
0043	731-02-00100	ReflectORIZED Raised Pavement Markers	805.000	EACH
				Dollars
				Cents
0044	732-02-02000	Plastic Pavement Striping (Solid Line) (4" Width) (Thermoplastic 90 mil)	4.684	MILE
				Dollars
				Cents
0045	732-03-02000	Plastic Pavement Striping (Broken Line) (4" Width) (Thermoplastic 90 mil)	0.100	MILE
				Dollars
				Cents
0046	740-01-00100	Construction Layout		LUMP SUM
				Dollars
				Cents
0047	804-01-00800	Precast Concrete Piles (36")	48,403.000	LNFT
				Dollars
				Cents
0048	804-05-00800	Precast Concrete Test Piles (36")	7.000	EACH
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 7

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0049	804-09-00100	Loading Test Piles	7.000	EACH
				Dollars
				Cents
0050	804-10-00100	Reloading Test Piles	1.000	EACH
				Dollars
				Cents
0051	804-11-00100	Redriving Test Piles	1.000	EACH
				Dollars
				Cents
0052	804-12-00100	Loading Permanent Piles	1.000	EACH
				Dollars
				Cents
0053	804-17-00100	Dynamic Monitoring	55.000	EACH
				Dollars
				Cents
0054	805-02-00200	Class A(M) Concrete (Footings)	2,498.940	CUYD
				Dollars
				Cents
0055	805-02-00300	Class A(M) Concrete (Piers)	685.180	CUYD
				Dollars
				Cents
0056	805-02-00400	Class A(M) Concrete (Bents)	1,170.030	CUYD
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 8

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0057	805-04-00100	Class AA(M) Concrete	2,227.870	CUYD
				Dollars
				Cents
0058	805-11-00100	Strip Seal Joints	429.390	LNFT
				Dollars
				Cents
0059	806-01-00100	Deformed Reinforcing Steel	2,168,943.000	LB
				Dollars
				Cents
0060	807-08-00100	Structural Metalwork		LUMP SUM
				Dollars
				Cents
0061	810-04-00100	Steel and Concrete Railing	8,070.000	LNFT
				Dollars
				Cents
0062	813-01-00100	Concrete Approach Slabs	279.890	SQYD
				Dollars
				Cents
0063	NS-203-00001	Bucket Dredging	74,800.000	CUYD
				Dollars
				Cents
0064	NS-722-00001	Resident Engineers' Housing Allowance	41.000	MNTH
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 9

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0065	NS-727-00001	Demobilization-Remobilization	6.000	EACH
				Dollars
				Cents
0066	NS-800-00080	Dynamic Analysis	15.000	EACH
				Dollars
				Cents
0067	NS-800-00160	Steel Finger Joints	190.160	LNFT
				Dollars
				Cents
0068	NS-800-00181	Precast Prestressed Concrete Girder (Type III) Class P (HPC)	8,495.200	LNFT
				Dollars
				Cents
0069	NS-800-00184	Precast Prestressed Concrete Girder (Type BT-78) Class P (HPC)	8,070.600	LNFT
				Dollars
				Cents
0070	NS-800-00202	Class A (HPC) Concrete (Piers)	876.710	CUYD
				Dollars
				Cents
0071	NS-800-00203	Class A (HPC) Concrete (Bents)	826.530	CUYD
				Dollars
				Cents
0072	NS-800-00204	Class AA (HPC) Concrete	5,287.510	CUYD
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 10

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0073	NS-800-00224	Precast Prestressed Concrete Girder (Type BT-78) (HPC)	747.500	LNFT
				Dollars
				Cents
0074	NS-800-00241	Bearing (Elastomeric) (Slab Span)	70.000	EACH
				Dollars
				Cents
0075	NS-800-00244	Bearing (Elastomeric) (Type III Girder)	228.000	EACH
				Dollars
				Cents
0076	NS-800-00248	Bearing (Elastomeric) (Type BT-78 Girder)	130.000	EACH
				Dollars
				Cents
0077	NS-800-00260	Hand Railing	3,995.710	LNFT
				Dollars
				Cents
0078	NS-800-00300	Instrumentation Installation for Integral Bridge Abutment	1.000	LUMP
				Dollars
				Cents
0079	NS-800-00540	Pile Dynamic Monitoring Instrumentation	1.000	LUMP
				Dollars
				Cents
0080	NS-800-00560	Deformed Reinforcing Steel (Stainless Steel)	1,576,930.000	LB
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 11

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0081	NS-805-00006	Special Surface Finish for Concrete	176,040.000	SQFT
				Dollars
				Cents
0082	NS-811-00004	Navigational Clearance Gauge (Painted)	2.000	EACH
				Dollars
				Cents
0083	NS-ITS-06120	Pullbox, Structure Mount, Furnish & Install - New	2.000	EACH
				Dollars
				Cents
0084	NS-P26-01000	Air Release Valve (1") (Jefferson Parish)	1.000	EACH
				Dollars
				Cents
0085	NS-P26-03000	Concrete Pipe Support Blister (Jefferson Parish)	202.000	EACH
				Dollars
				Cents
0086	NS-P26-05000	Expansion/Contraction Coupling (Jefferson Parish)	2.000	EACH
				Dollars
				Cents
0087	NS-P26-06000	Fire Hydrants (Jefferson Parish)	2.000	EACH
				Dollars
				Cents
0088	NS-P26-06020	Fittings for Waterlines (DI) (Jefferson Parish)	1,900.000	LB
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 12

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0089	NS-P26-07000	Gate Valve and Valve Box (8") (Jefferson Parish)	7.000	EACH
				Dollars
				Cents
0090	NS-P26-07020	Gate Valve and Valve Box (12") (Jefferson Parish)	2.000	EACH
				Dollars
				Cents
0091	NS-P26-12000	Long Body Transitional Coupling (4") (Jefferson Parish)	4.000	EACH
				Dollars
				Cents
0092	NS-P26-12020	Long Body Transitional Coupling (6") (Jefferson Parish)	1.000	EACH
				Dollars
				Cents
0093	NS-P26-12040	Long Body Transitional Coupling (8") (Jefferson Parish)	2.000	EACH
				Dollars
				Cents
0094	NS-P26-15000	Offset Pipe Clamp Assembly (Jefferson Parish)	202.000	EACH
				Dollars
				Cents
0095	NS-P26-18000	Removal and Disposal of Existing AC Waterline (Jefferson Parish)	1,220.000	LNFT
				Dollars
				Cents
0096	NS-P26-18020	Removal and Disposal of Existing DI Waterline (Jefferson Parish)	4,000.000	LNFT
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 13

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0097	NS-P26-23000	Water Service Connections (Jefferson Parish)	2.000	EACH
				Dollars
				Cents
0098	NS-P26-23020	Waterline (12" DI) (Jefferson Parish)	4,000.000	LNFT
				Dollars
				Cents
0099	NS-P26-23040	Waterline (12" DI) (Restrained) (Jefferson Parish)	240.000	LNFT
				Dollars
				Cents
0100	NS-P26-23060	Waterline (8" PVC) (Jefferson Parish)	650.000	LNFT
				Dollars
				Cents
0101	NS-P26-23080	Waterline (12" PVC) (Jefferson Parish)	800.000	LNFT
				Dollars
				Cents
0102	NS-P26-23100	Waterline (4" PVC) (Restrained) (Jefferson Parish)	60.000	LNFT
				Dollars
				Cents
0103	NS-P26-23120	Waterline (6" PVC) (Restrained) (Jefferson Parish)	100.000	LNFT
				Dollars
				Cents
0104	NS-P26-23140	Waterline (8" PVC) (Restrained) (Jefferson Parish)	150.000	LNFT
				Dollars
				Cents



5/29/2009

Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 14

Contract ID: 064-01-0040

Project(s): 064-01-0040

SECTION: 1

GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0105	NS-P26-23160	Waterline (12" PVC) (Restrained) (Jefferson Parish)	200.000	LNFT
				Dollars
				Cents

Section: 1

Total: _____

Items Total: _____

Cost Plus Time	Road User Cost Per Unit	Unit Type	Number of Units Bid
01	CALENDAR DAY A+B	3,000.00 Days	_____

Total Bid: _____

CONSTRUCTION PROPOSAL SIGNATURE AND EXECUTION FORM

THIS FORM, THE SCHEDULE OF ITEMS, AND THE PROPOSAL GUARANTY MUST BE COMPLETED AS INDICATED AND SUBMITTED TO THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT (DOTD) TO CONSTITUTE A VALID BID

STATE PROJECT NO. 064-01-0040

FEDERAL AID PROJECT NO. 5201(600)

NAME OF PROJECT CAMINADA BAY BRIDGE

I (WE) HEREBY CERTIFY THAT I (WE) HAVE CAREFULLY EXAMINED THE PROPOSAL, PLANS AND SPECIFICATIONS, INCLUDING ANY AND ALL ADDENDA, AND THE SITE OF THE ABOVE PROJECT AND AM (ARE) FULLY COGNIZANT OF ALL PROPOSAL DOCUMENTS, THE MASTER COPY OF WHICH IS ON FILE AT DOTD HEADQUARTERS IN BATON ROUGE, LA., AND ALL WORK, MATERIALS AND LABOR REQUIRED THEREIN, AND AGREE TO PERFORM ALL WORK, AND SUPPLY ALL NECESSARY MATERIALS AND LABOR REQUIRED FOR SUCCESSFUL AND TIMELY COMPLETION OF THE ABOVE PROJECT AND TO ACCEPT THE SUMMATION OF THE PRODUCTS OF THE UNIT PRICES BID ON THE SCHEDULE OF ITEMS ATTACHED HERETO AND MADE A PART HEREOF MULTIPLIED BY THE ACTUAL QUANTITY OF UNIT OF MEASURE PERFORMED FOR EACH ITEM, AS AUDITED BY DOTD, AS FULL AND FINAL PAYMENT FOR ALL WORK, LABOR AND MATERIALS NECESSARY TO COMPLETE THE ABOVE PROJECT, SUBJECT TO INCREASE ONLY FOR PLAN CHANGES (CHANGE ORDERS) APPROVED BY THE DOTD CHIEF ENGINEER OR HIS DESIGNEE. THIS BID IS SUBMITTED IN ACCORDANCE WITH THE GENERAL BIDDING REQUIREMENTS IN THE CONSTRUCTION PROPOSAL AND ALL SPECIAL PROVISIONS, PLANS, SUPPLEMENTAL SPECIFICATIONS, AND THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (2006 EDITION). I (WE) UNDERSTAND THAT THE SUMMATION OF THE PRODUCTS OF THE UNIT PRICES BID ON THE SCHEDULE OF ITEMS MULTIPLIED BY THE ESTIMATED QUANTITY OF UNIT OF MEASURE FOR EACH ITEM, ALONG WITH ANY OTHER FACTORS SPECIFIED TO BE APPLICABLE SUCH AS CONSTRUCTION TIME AND/OR LANE RENTAL, SHALL BE THE BASIS FOR THE COMPARISON OF BIDS. I (WE) UNDERSTAND THAT THE SCHEDULE OF ITEMS MUST CONTAIN UNIT PRICES WRITTEN OUT IN WORDS AND THAT THE SCHEDULE OF ITEMS SUBMITTED AS PART OF THIS BID IS ON THE FORM SUPPLIED BY DOTD IN THE BID PROPOSAL. MY (OUR) PROPOSAL GUARANTY IN THE AMOUNT SPECIFIED FOR THE PROJECT IS ATTACHED HERETO AS EVIDENCE OF MY (OUR) GOOD FAITH TO BE FORFEITED IF THIS BID IS ACCEPTED BY DOTD AND I (WE) FAIL TO COMPLY WITH ANY REQUIREMENT NECESSARY FOR AWARD AND EXECUTION OF THE CONTRACT, AS WELL AS, SIGN AND DELIVER THE CONTRACT AND PAYMENT/PERFORMANCE/RETAINAGE BOND AS REQUIRED IN THE SPECIFICATIONS.

NONCOLLUSION DECLARATION (APPLICABLE TO FEDERAL-AID PROJECTS)

I (WE) DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES AND THE STATE OF LOUISIANA THAT I (WE) HAVE NOT DIRECTLY OR INDIRECTLY, ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION, OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THE CONTRACT FOR THIS PROJECT NOR VIOLATED LA. R.S. 48:254.

BIDDER'S DBE GOAL STATEMENT (APPLICABLE TO DBE GOAL PROJECTS)

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS A DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOAL PROJECT IN ACCORDANCE WITH THE DBE PROVISIONS OF THIS CONTRACT, THE BIDDER ASSURES DOTD THAT HE/SHE WILL MEET OR EXCEED THE DBE CONTRACT GOAL, OR IF THE BIDDER CANNOT MEET THE REQUIRED DBE GOAL, THE BIDDER ASSURES DOTD THAT HE/SHE HAS MADE AND CAN DOCUMENT GOOD FAITH EFFORTS MADE TOWARDS MEETING THE GOAL REQUIREMENT IN ACCORDANCE WITH THE CONTRACT AND DBE PROGRAM MANUAL INCORPORATED HEREIN BY REFERENCE.

THE APPARENT LOW BIDDER SHALL COMPLETE AND SUBMIT TO THE DOTD COMPLIANCE PROGRAMS OFFICE, FORM CS-6AAA AND ATTACHMENT(S) AND, IF NECESSARY, DOCUMENTATION OF GOOD FAITH EFFORTS MADE BY THE BIDDER TOWARD MEETING THE GOAL, WITHIN TEN BUSINESS DAYS AFTER THE OPENING OF BIDS FOR THIS PROJECT. RESPONSIVENESS OF INFORMATION SUPPLIED IN THIS SECTION OF THIS CONSTRUCTION PROPOSAL SIGNATURE AND EXECUTION FORM IS GOVERNED BY THE DBE REQUIREMENTS INCLUDED WITHIN THE SPECIFICATIONS AND DBE PROGRAM MANUAL.

CERTIFICATION OF EMPLOYMENT OF LOUISIANA RESIDENTS TRANSPORTATION INFRASTRUCTURE MODEL FOR ECONOMIC DEVELOPMENT (TIME) PROJECTS (APPLICABLE TO TIME PROJECTS)

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS A TRANSPORTATION INFRASTRUCTURE MODEL FOR ECONOMIC DEVELOPMENT (TIME) PROJECT AS DEFINED IN ACT NO. 16 OF THE 1989 FIRST EXTRAORDINARY SESSION OF THE LEGISLATURE WHICH ENACTED PART V OF CHAPTER 7 OF SUBTITLE II OF TITLE 47 OF THE LOUISIANA REVISED STATUTES OF 1950, COMPRISED OF R.S. 47:820.1 THROUGH 820.6.

THE BIDDER CERTIFIES THAT AT LEAST 80 PERCENT OF THE EMPLOYEES EMPLOYED ON THIS TIME PROJECT WILL BE LOUISIANA RESIDENTS IN ACCORDANCE WITH LOUISIANA R.S. 47:820.3.

NON PARTICIPATION IN PAYMENT ADJUSTMENT (ASPHALT CEMENT AND FUELS) STATEMENT

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS BEING SUBJECT TO PAYMENT ADJUSTMENT FOR ASPHALT CEMENT AND/OR FUELS, THE BIDDER HAS THE OPTION OF REQUESTING EXCLUSION FROM SAID PAYMENT ADJUSTMENT PROVISIONS THAT ARE ESTABLISHED BY SPECIAL PROVISION ELSEWHERE HEREIN.

IF THE BIDDER DESIRES TO BE EXCLUDED FROM THESE PAYMENT ADJUSTMENT PROVISIONS,

THE BIDDER IS REQUIRED TO MARK HERE ☐

FAILURE TO MARK THIS BOX PRIOR TO BID OPENING WILL CONSTITUTE FORFEITURE OF THE BIDDER'S OPTION TO REQUEST EXCLUSION.

CS-14A
08/06

STATE PROJECT NO. 064-01-0040,

BIDDER SIGNATURE REQUIREMENTS (APPLICABLE TO ALL PROJECTS)

THIS BID FOR THE CAPTIONED PROJECT IS SUBMITTED BY:

(Name of Principal (Individual, Firm, Corporation, or Joint Venture))

(If Joint Venture, Name of First Partner)

(Louisiana Contractor's License Number of Bidder or First Partner to Joint Venture)

(Business Street Address)

(Business Mailing Address, if different)

(Area Code and Telephone Number of Business)

(Telephone Number and Name of Contact Person)

(Telecopier Number, if any)

(If Joint Venture, Name of Second Partner)

(Louisiana Contractor's License Number of Second Partner to Joint Venture)

(Business Street Address)

(Business Mailing Address, if different)

(Area Code and Telephone Number of Business)

(Telephone Number and Name of Contact Person)

(Telecopier Number, if any)

ACTING ON BEHALF OF THE BIDDER, THIS IS TO ATTEST THAT THE UNDERSIGNED DULY AUTHORIZED REPRESENTATIVE OF THE ABOVE CAPTIONED FIRM, CORPORATION OR BUSINESS, BY SUBMISSION OF THIS BID, AGREES AND CERTIFIES THE TRUTH AND ACCURACY OF ALL PROVISIONS OF THIS PROPOSAL, INCLUSIVE OF THE REQUIREMENTS, STATEMENTS, DECLARATIONS AND CERTIFICATIONS ABOVE AND IN THE SCHEDULE OF ITEMS AND PROPOSAL GUARANTY. EXECUTION AND SIGNATURE OF THIS FORM AND SUBMISSION OF THE SCHEDULE OF ITEMS AND PROPOSAL GUARANTY SHALL CONSTITUTE AN IRREVOCABLE AND LEGALLY BINDING OFFER BY THE BIDDER.

(Signature)

(Printed Name)

(Title)

(Date of Signature)

(Signature)

(Printed Name)

(Title)

(Date of Signature)

CONTRACTOR'S INFORMATIONAL BID

It is agreed that the total bid shown below, determined by the bidder, is for purposes of opening and reading bids only and that the low bidder for this project will be determined in accordance with the special provision entitled **COST-PLUS-TIME BIDDING PROCEDURE (A+B METHOD)**, as determined by the Department.

A = Summation of products of the quantities shown in the Schedule of Items multiplied by the unit prices.

A = _____

B = Bidders proposed contract time multiplied by the Daily User Cost (\$3000).

B = _____ Calendar Days x \$3000

B = _____

Contractor's Total Bid (A + B) _____

CS-14AA
08/06